Holden

APOLLO

OWNER'S HANDBOOK

JL SERIES

Vehicle Identification Certificate

Owner's Name .....
Address .....
Town .....
State .....Postcode .....
Model Name .....
Reg. No. .....Eng. No. .....
Odometer Reading .....
Date of Purchase .....
Vehicle Identification Number

Selling
Dealer's
Stamp & Signature .....

Change of address/ownership

It may be necessary for General Motors-Holden's Automotive Limited (hereinafter Holden's) to contact the owners of Holden vehicles from time to time. To enable this contact, records are maintained of owner's names and addresses.

So we can keep these records up to date, please complete and return by mail one of the forms at the rear of this handbook, if

a) you change your address
b) you have purchased this car from a previous owner.

Part No. 01999-9B107
December 1991

Foreword

Welcome to the growing group of value-conscious people who drive Holdens. We are proud of the advanced engineering and quality construction of our vehicles.

We invite you to read through this Owner's Handbook. It is designed to acquaint you with the features of your new Holden and to help you enjoy many kilometres of motoring pleasure.

When it comes to service, remember that your Holden dealer knows your vehicle best and is interested in your complete satisfaction. He will provide quality maintenance and any other assistance you may require.

Please leave this handbook in the vehice at the time of resale as the next owner will also need the information.

Please Note: This book explains how to operate the accessories and equipment found in your vehicle. Also, maintenance and service information is given. Extensive coverage is given so that individual owners can gain knowledge of their Holden Model. However, the explanations, illustrations and specification details herein, are not to be taken as representing that your vehicle has any particular item fitted to it nor any feature referred to herein. Further, even though the information and specifications in this manual are current at the time of printing, vehicle production changes can occur and, consequently, some of the explanations and specifications might not apply to your Holden.

Issued by: General Motors-Holden's Automotive Limited (A.C.N. 006 893 232), herein after, Holden.

Modification of your Holden

Please be aware that any modification of your Holden could affect its performance, safety, durability or warranty, and may even violate governmental regulations.

Installation of a mobile two-way radio system

As the installation of a mobile two-way radio system in your vehicle could affect electronic systems such as electronic fuel injection system, be sure to check with your Holden dealer for precautionary measures or special instructions regarding installation.

PART A—Vehicle Operation and Care A

PART B—Warranty and Maintenance B

PART C—Index C

PART A—Vehicle Operation and Care

A

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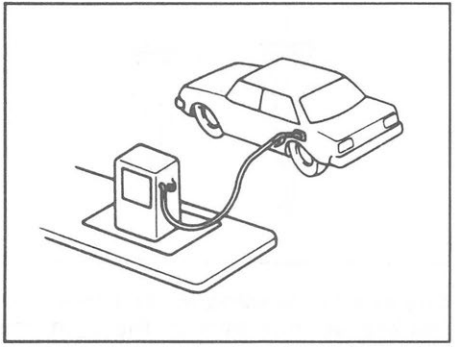
Information for the new owner—Section 1

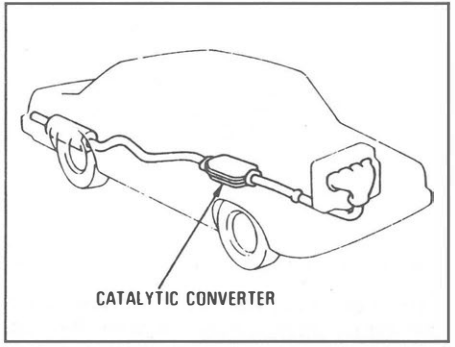
Fuel recommendation and the catalytic converter



Use only unleaded petrol in your Holden as it is equipped with a catalytic converter.

The catalytic converter is an emission control device installed in the exhaust system, its purpose is to reduce harmful constituents in the exhaust by oxidation and/or reduction. This involves an exothermic chemical reaction and generally results in the exhaust system attaining higher temperatures than non-converter type systems. Whilst heat shields and other measures have been implemented where necessary to reduce the effects of heat on the environment and vehicle, ***it is recommended as safe practice that you do not drive, idle or park your vehicle where readily combustible materials such as grass, leaves paper etc., are close to the exhaust system.*** As is the case with conventional exhaust systems, it is recommended that no work in the vicinity of the exhaust is conducted on the vehicle whilst the engine is running or cooling down.

Catalytic converter location



WARNING: Incorrect fuel and large amounts of unburned fuel flowing into the converter may cause it to overheat and/or reduce its life and efficiency. Similarly, certain engine malfunctions, particularly misfiring, create an excessive heat load on the converter.

To prevent these effects, please observe the following precautions:

- Use only unleaded petrol (ULP). Leaded petrol will seriously damage the converter.
- Do not turn off the ignition while the vehicle is moving.
- Avoid racing the engine.
- Do not allow the engine to idle for more than 20 minutes.
- Do not push start or pull start your vehicle.
- Do not drive with an extremely low fuel level, running out of fuel could cause the engine to misfire.
- Keep your engine in good running order. Malfunctions in the engine, electrical, ignition, fuel injection and carburation systems must be avoided.

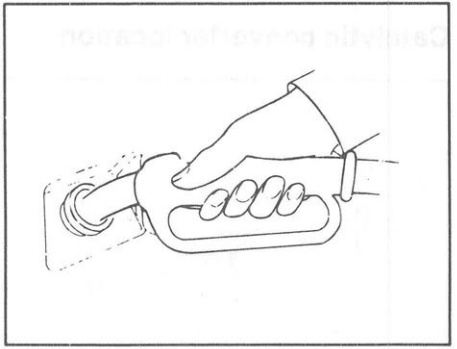
continued overleaf

Fuel recommendation and the catalytic converter—*continued*

- If the engine becomes difficult to start, stalls frequently or ping/knocks during acceleration, take your vehicle in for a check up as soon as possible. Remember, your Holden Dealer knows your vehicle and its catalytic converter system best.
- Do not continue operating the vehicle if the engine is misfiring.

To ensure that the converter and entire emission system operates properly, your vehicle must receive the periodic inspections required by the Holden Maintenance Schedule given in part "B" of this handbook.

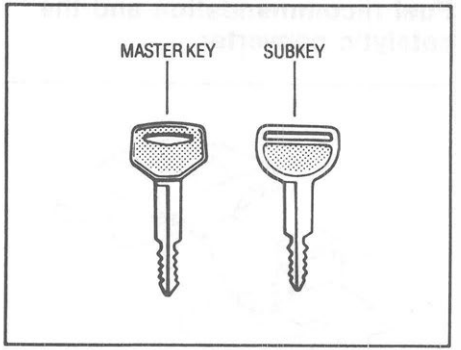
Filling with unleaded petrol:



Before allowing the petrol to flow, push the nozzle hard enough to open the flap in the filler tube and continue pushing until the nozzle will go no further.

Service stations sell both leaded and unleaded petrol. Leaded petrol is dispensed through nozzles larger than unleaded ones. To protect your car from being filled with leaded petrol it has a filler neck that is only wide enough to accept the unleaded petrol dispensing nozzle. As an added precaution, the filler tube contains a flap that will not open when a leaded petrol nozzle is inserted. Thus, leaded petrol will spill out of the filler instead of going into the fuel tank.

Two keys for your vehicle

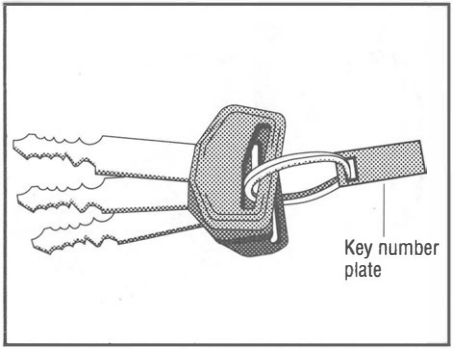


The master key works in every lock. The subkey will not work in the boot and glovebox.

When you have your vehicle parked, leave the subkey with the attendant. Remember, however, not to leave valuables in the boot, as access may be gained via the fold down rear seat.

Since the doors and boot can be locked, without a key, you should always carry a spare master key in case you accidentally lock your keys inside the vehicle or boot. Refer boot lid lock page 52.

Key number plate (all models)

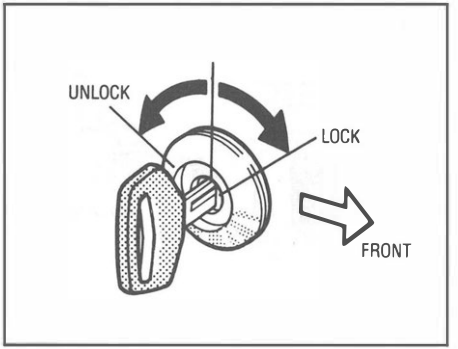


Keep the key number plate in a safe place such as your wallet, not in the vehicle.

If you should lose your keys or if you need additional keys, duplicates can be made by a Toyota dealer using the key number.

You should also put a copy of the key number with your important papers.

Door locks—
Locking and unlocking with key



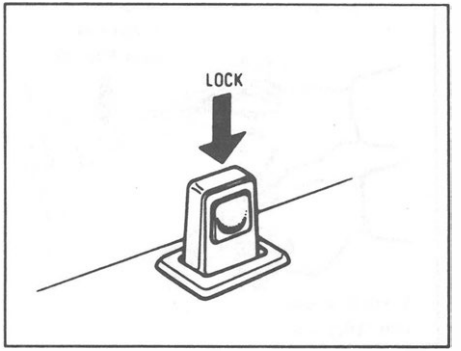
Turn the key towards the front of the vehicle to lock and towards the back to unlock.

The doors of models equipped with an electric door locking system may be locked at different points as follows:

1. The door lock switch on inside of driver's door (SLE Model)—see page 4.
2. Door lock buttons.
3. With key by locking either of the front doors.

Note: The locking system can be overridden on individual doors by unlocking any of the door lock buttons.

Locking from the inside

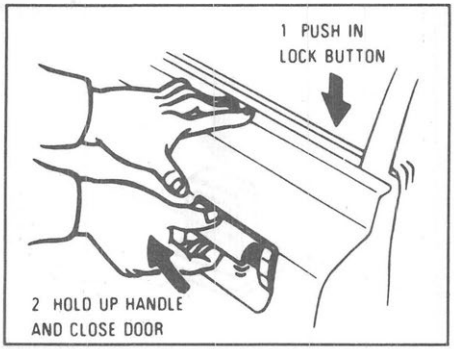


After closing the door, lock it by pushing down on the lock button.

When the door is locked as shown above, it cannot then be opened with either the outside or the inside handle. ***We recommend locking the doors while driving, especially when small children are in the car.***

To unlock, lift the lock button.

Locking from the outside without key

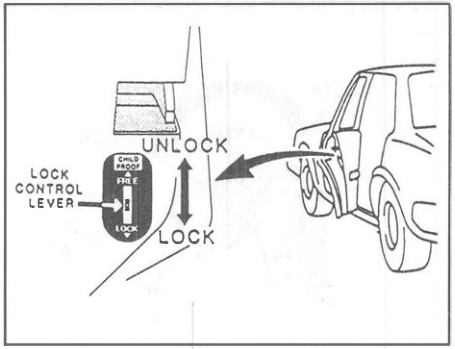


Push in the lock button. Then hold up the handle as you close the door.

You need not hold up the handle when locking the rear doors. ***Be careful not to lock your keys in the vehicle.***

Note: Locking a vehicle equipped with an electric door locking system by this method will not lock all doors. To lock all doors refer to the door locking procedure outlined under door locks on page 3.

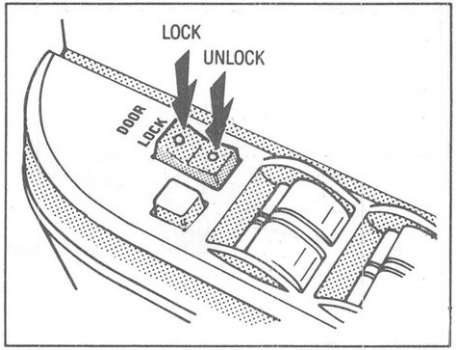
Rear door child-protector



Use the child-proof lock when carrying children on the rear seat.

The function of the child-proof lock is to retain children in the rear of the vehicle by over-riding the normal door locking and release mechanism. To operate, push the child-proof lock lever down (the door can then only be opened from the outside).

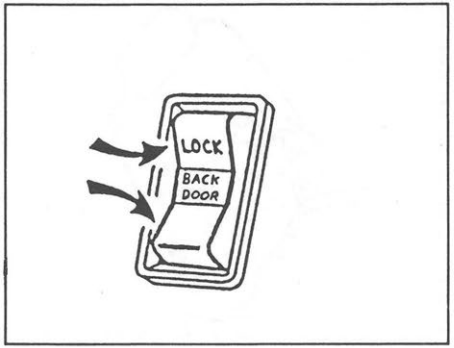
Power door lock switch— SLE Model



To lock all the side doors simultaneously, push the switch on the "DOOR LOCK" side. Pushing on the opposite side will unlock them.

Locking operation will be nullified if either front door is open with the key in the ignition switch.

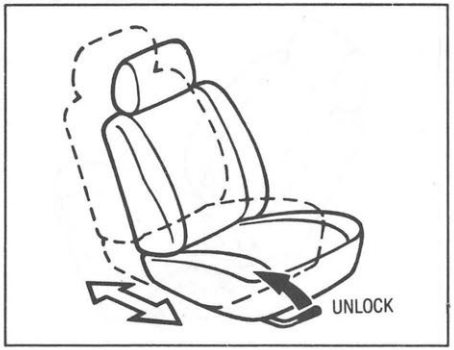
Power tailgate lock switch—GS Model—Station Wagon



The tailgate may be automatically locked or unlocked by using this switch.

Push the "LOCK" side of the switch briefly to lock the tailgate. To unlock the tailgate push the "UNLOCK" side of the switch.

Front seats—Adjusting seat position



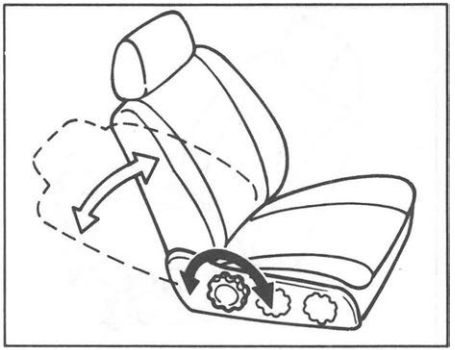
Pull the lock release lever up. Then slide the seat to the desired position with slight body pressure and release the lever.

After adjusting the seat, try sliding it forward and backward to make sure it is locked in position.

This adjustment must not be made while the vehicle is moving.

Do not place anything under the front seats. It might interfere with the seat-lock mechanism.

Adjusting seatback angle—All Models



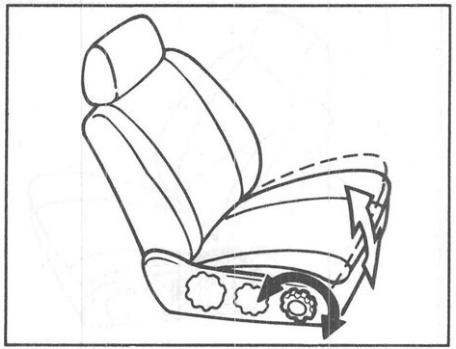
Lean forward and rotate the seat adjusting knob until the seatback angle is at the desired position.

The seatback may be fully reclined by continued rotation of the adjusting knob.

This adjustment must not be made while the vehicle is moving.

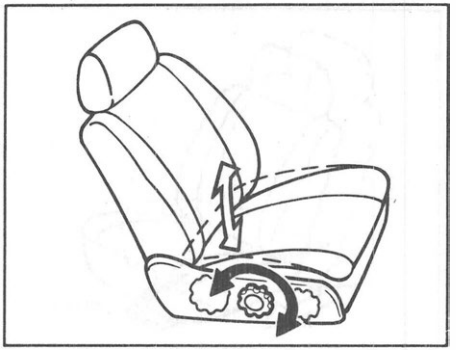
To avoid reducing the effectiveness of seat belts, it is recommended that the reclining seats be used in no more than a semi-reclined position when the car is moving. The fully reclined position should be used only when the car is stationary.

Adjusting front seat cushion angle—if fitted



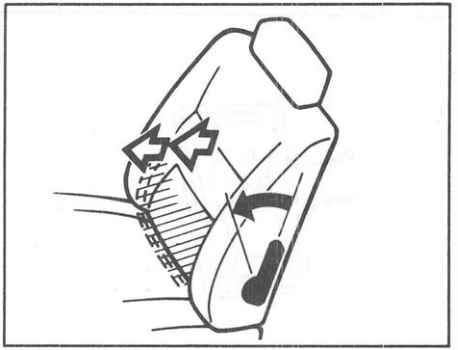
Turn the adjusting knob anti-clockwise to increase the cushion angle and clockwise to decrease the angle.
This adjustment must not be made while the vehicle is moving.

Adjusting driver's seat rear cushion height—if fitted



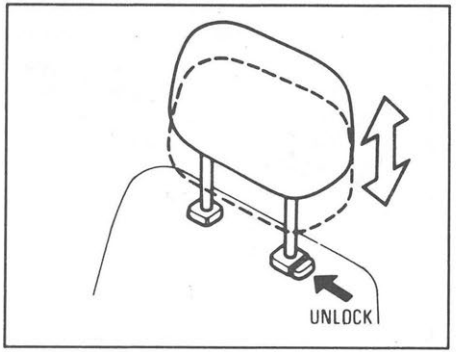
Rotate the height adjustment knob anti-clockwise to lift the cushion height at the rear of the front seat. Rotate the knob the opposite direction to lower the cushion.
This adjustment must not be made while the vehicle is moving.

Adjusting lumbar support—if fitted



To change the amount of lumbar support, move adjusting lever forward or backward until the desired support is obtained.

Head restraint— Vertically adjustable type

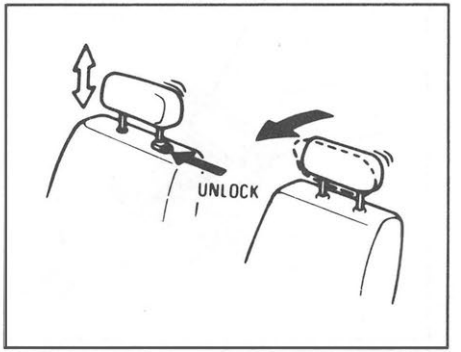


To raise: Pull up on the head restraint. To lower: Press down on the head restraint while holding the lock release button.

Adjust the top of the head restraint so that it is in line with the top of your ears, and lock it into position. Do not drive with the head restraints removed.

The head restraint is most effective when it is close to your head. Therefore, placing a cushion between the driver or passenger and the seatback is not recommended.

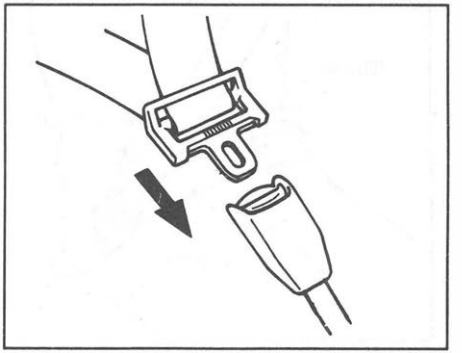
Head restraint—SLE Model— Vertically and horizontally adjustable type



In addition to the up and down adjustment previously described, the head restraint can be tilted by pulling the top of the head restraint forward.

There are 3 adjustments: once the most forward one has been reached, a further pull on the head restraint will return it to the rear position.

Seat belts 3 point emergency locking retractor (ELR)



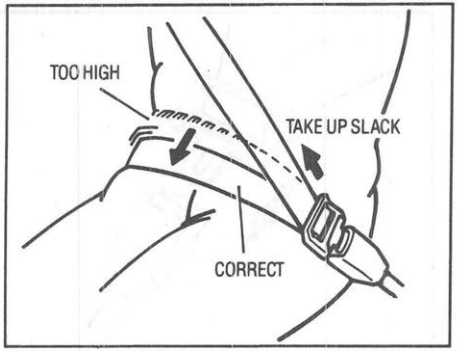
To put on a front, or one of the two outer ELR rear passenger seat belts, pull the belt round your body and insert the tongue into the buckle.

You will hear a "click" when the tongue locks into the buckle. Make sure the belt is not twisted.

The belt might lock if you pull it out too quickly. It should be pulled out slowly. The inertia reel will lock the belt during a fast stop or on impact, it also may lock if you lean forward too quickly. A slow easy motion will allow it to extend, and you can move around freely. Adjustment to your size and seat position is automatic.

continued overleaf

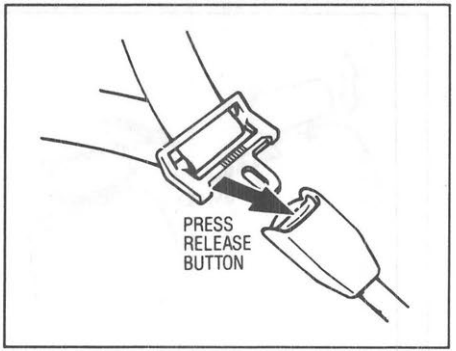
Seat Belts—3 point ELR type



Adjust the belt position and allow the inertia reel to take up the extra length of the lap belt.

The lap belt should **fit snugly and as low as possible on your hips**—not on your waist, then adjust it to a snug fit by pulling the shoulder portion upward through the latch plate. Failure to do so could increase the chance of injury due to sliding under the lap belt during an accident.

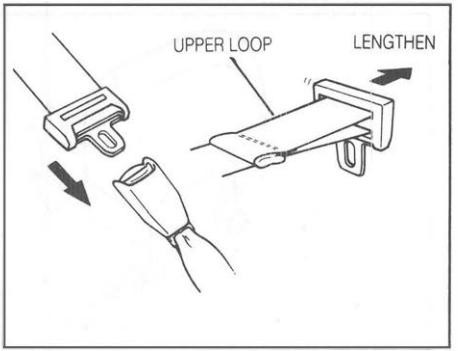
For your safety, do not place the shoulder belt under your arm.



To release a belt, press the buckle release button and allow the belt to retract.

If the belt does not fully retract, pull it out and check for kinks or twisting. Then make sure that it remains untwisted as it retracts.

Rear seat belt—2-point (centre)

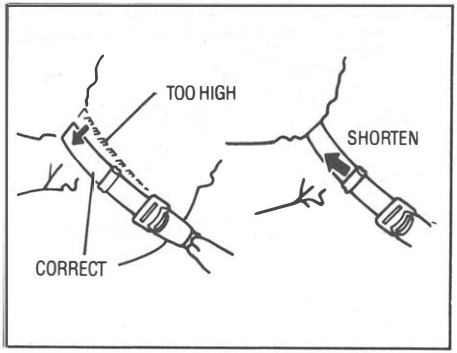


To fit the belt, insert tongue into buckle.

You will hear a "click" when the tongue locks into the buckle. Make sure the connection is secure and the belt is not twisted.

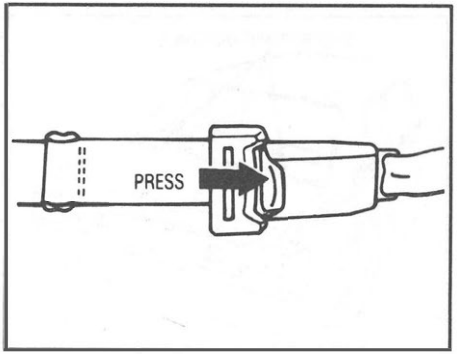
If the belt length has to be increased, hold the tongue at a right angle to the belt and pull on it.

Note: When the rear seat backs or cushions have been replaced after having been folded (see page 50), make sure that the selt belt tongue and buckle are positioned on top of the cushion so that they are accessible.



Remove excess length of belt and push the belt down over your hips.

To adjust, tilt buckle and pull on the upper loop of the belt. The lap belt should ***fit snugly and as low as possible on your hips***—not on your waist, then adjust it to a snug fit. Failure to do so could increase the chance of injury due to sliding under the lap belt during an accident.



To release the belt, press the buckle-release button.

Seat belt tips

- **Children.** We recommend that they sit in the rear seat and be restrained with the seat belts. If a child is in the front seat, the child must be restrained by the seat belt. Do not allow the child to stand up or kneel on the seat.
- **Pregnant women.** Holden recommends the use of a seat belt. Ask your doctor for the specific recommendations. The lap belt should be worn securely and as low as possible over the hips and not on the waist.
- **Injured person.** Holden recommends the use of a seat belt. Depending on the injury, however, first check with your doctor.
- **Babies and small children.** Special safety seats are available. We recommend their use, refer to "Child restraint anchorages" on page 10.
- ***Always make sure that all the occupants have their seat belts fastened before commencing to drive the vehicle.***

WARNING:

Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis, or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.

continued overleaf

No modifications and additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed.

A slack belt will greatly reduce the protection afforded to the wearer.

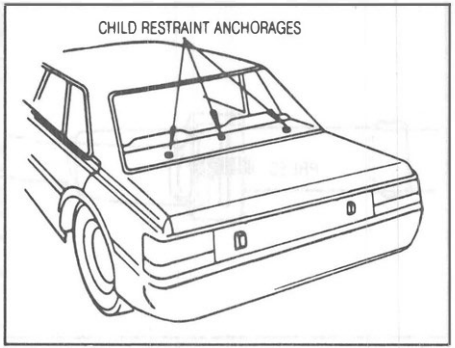
Care should be taken to avoid contamination of the webbing with polish, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.

It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.

Belts should not be worn with straps twisted.

Each seat belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.

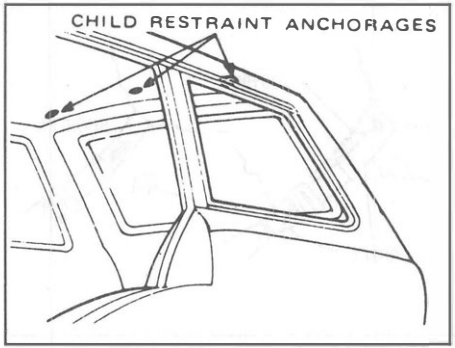
Child restraint anchorages - Sedan



The sedan has three child restraint anchorage points concealed beneath plugs in the rear parcel tray. Remove the plugs to expose anchorage nuts when installing child restraints.

WARNING: Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts or harnesses.

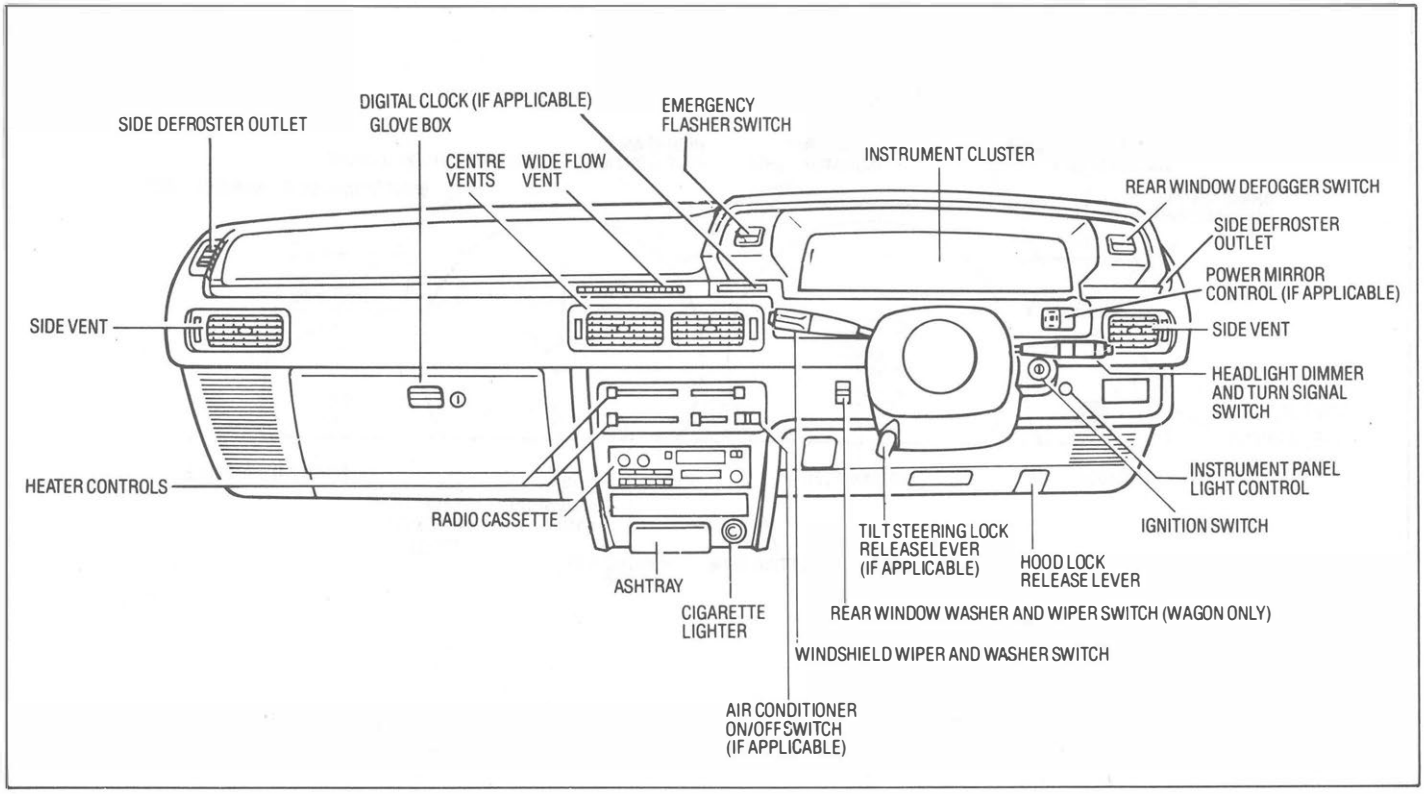
Station Wagon



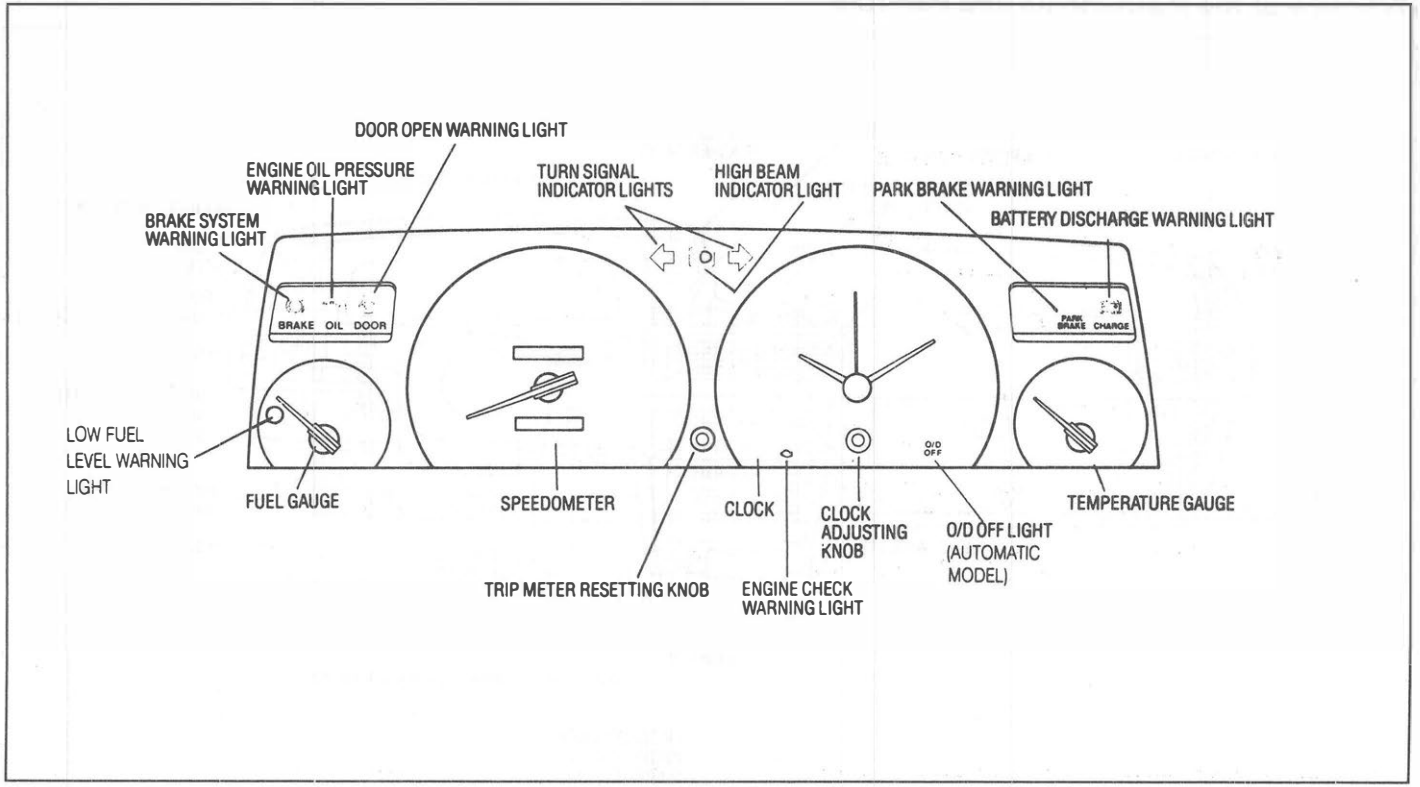
The station wagon child restraint anchorages are in the rear roof by the back door hinge. Remove the plugs to expose the anchorage nuts when installing child restraints.

Note: If you travel with one of the seat backs folded (see page 51) and you are taking a child passenger, attach the child restraint to the anchorage immediately behind the seat back that is not folded.

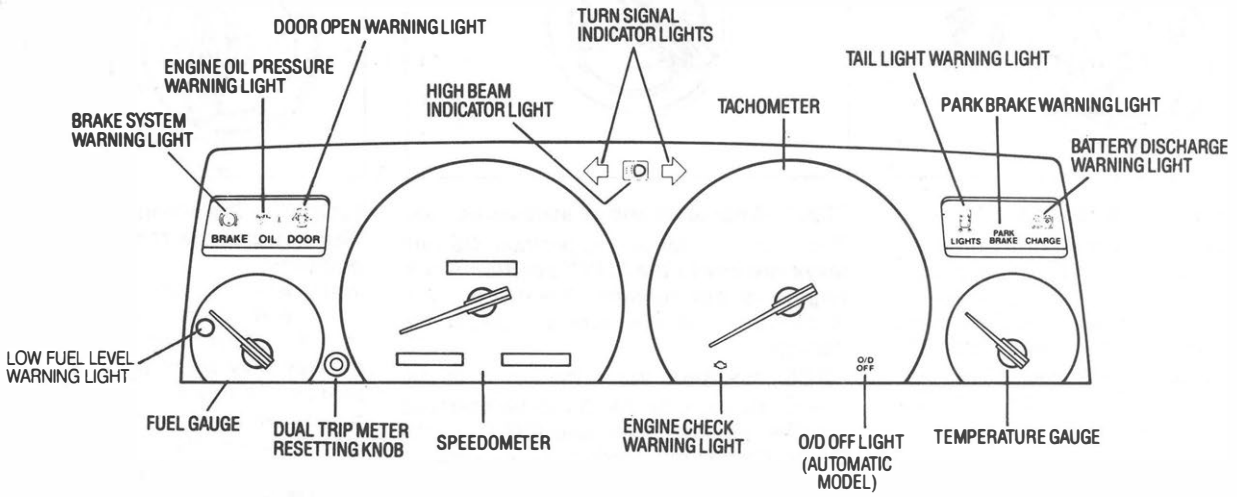
Overview of the instruments and controls



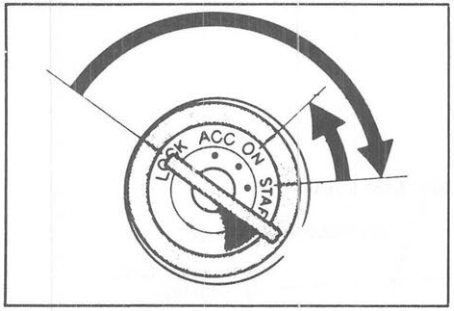
Instrument cluster—SL and SLX Models



Instrument cluster—GS and SLE Models



Combination ignition switch and steering lock



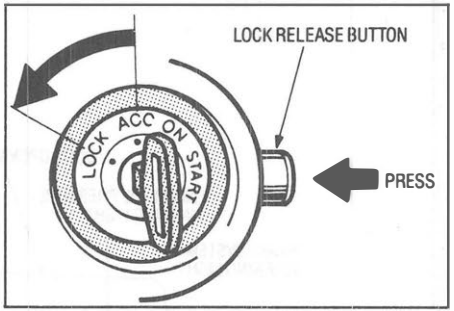
"START"—Starter motor on.

Before starting, place an automatic transmission in "P" or "N" or a manual transmission in neutral and depress the clutch pedal. As soon as the engine starts, release the key. It will return to the "ON" position. Do not operate the starter continuously for more than 15 seconds. (For starting tips, see Page 55).

"ON"—Engine on and all accessories on.

This is the normal driving position. ***Do not leave the key in the "ON" position if the engine is not running.*** The battery will discharge and the ignition could be damaged.

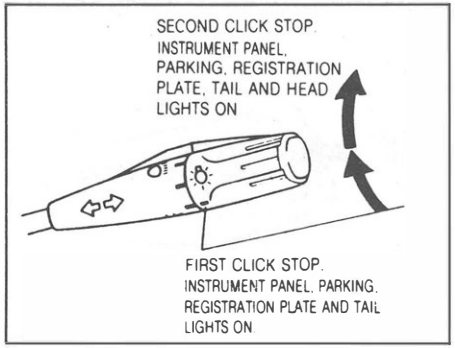
"ACC" position. When the key is at the "ACC" position, the radio can be operated and the cigarette lighter used. Also the digital clock (GS and SLE Models) will illuminate.



"LOCK"—The steering wheel is locked. The key can be removed only at this position.

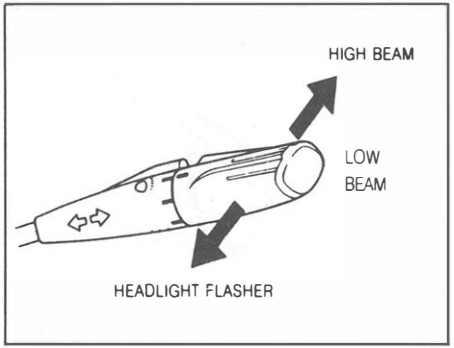
You must press in the lock release button to turn the key from "ON" or "ACC" to the "LOCK" position. When starting the engine the key may seem stuck at the "LOCK" position. To free it, first be sure the key is pushed all the way in, and then rock the steering wheel slightly while turning the key gently. **Never press the lock release button, turn the key to "LOCK" and remove the key when the vehicle is moving,** as this will lock the steering wheel and result in loss of steering control. If you must turn the engine off while the vehicle is in motion, turn the key only to "ACC". ***Never press down the lock release button and remove the key and do not push, tow, or coast your car with the key at "LOCK".***

Combination headlight, dimmer and turn signal switch



To turn the lights on, twist the knob on the end of the lever.

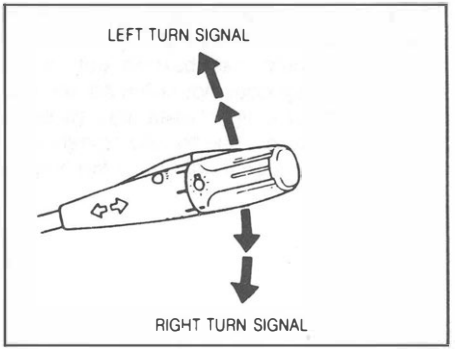
Should the headlights of the GS and SLE models be inadvertently left switched on, the headlights will turn off automatically when the driver's side door is opened with the ignition turned off. To turn them on again, turn the key to the "ON" position or actuate the headlight switch.



For high beam, push the lever forward. Pull it back for low beam. For the headlight flasher, pull it further back.

A blue light on the dashboard indicates high beam.

The headlight flasher works even when the headlight switch is off.



For signalling turns, move the switch up or down.

The switch has two signalling functions, turn signalling and lane changing signalling.

Turn signalling: A turn signal is given by moving the signal switch up or down as far as its movement will allow.

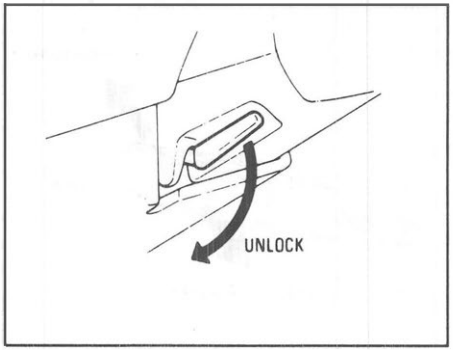
Lane change signalling: To signal a lane change, apply a gentle up or down pressure to the switch.

Signalling will cease once your hand is taken from the switch.

continued overleaf

If the green dashboard light flashes faster than normal, it indicates that the front or rear turn signal bulb has burned out. If the dashboard light does not come on, the fuse or the indicator light itself has probably failed. You may change headlight beam even while the turn signal lights are flashing.

Tilt steering wheel—if applicable

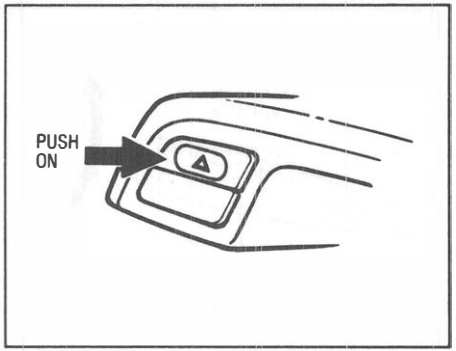


To change the steering wheel height, push down the lock release lever, tilt the steering wheel to the desired height and pull the lever up to its original position.

After adjusting the steering wheel, try moving it up and down to make sure it is locked in position.

Never make this adjustment while the vehicle is moving.

Emergency flasher switch



To turn on the emergency warning lights, push the switch in.

All the turn signal lights will flash. The emergency warning lights will work with the engine running or off without the ignition key.

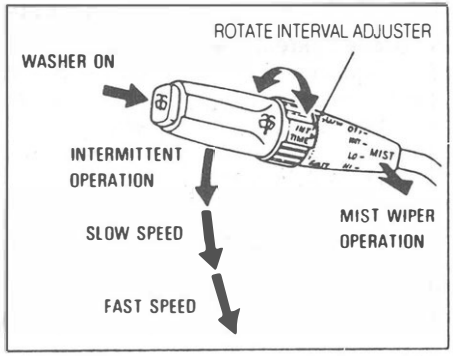
Turn on the emergency flashers to warn other drivers if your vehicle must be stopped where it might be a traffic hazard.

Always pull as far off the road as possible.

The turn signal lights will not work when the emergency flashers are operating.

To turn off the warning lights, press the switch a second time.

Windshield wiper and washer switch—SLE Model



To turn the wipers on, pull the switch down until the desired speed is obtained. The mist action (single sweep of the wiper blades) is obtained by pulling the switch toward you. To operate the washer, push the button on end of switch.

The switch incorporates an interval adjuster. It may be used to adjust the blade sweep intervals when the wiper switch is in the "INT" position. The wipers can be adjusted to sweep at intervals of 3 to 12 seconds depending on the interval adjuster setting between "SLOW" and "FAST"

Windshield wiper and washer switch—SLE Model *(continued)*

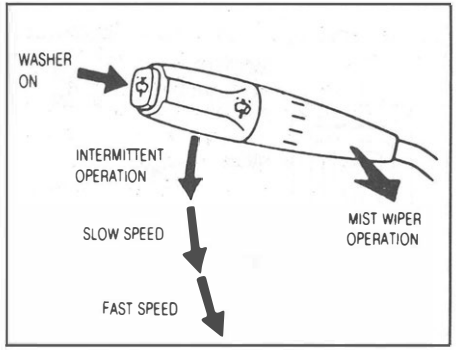
When the screen washer is operated and the wiper switch is in the 'OFF" position, the wipers will automatically make a few sweeps of the windshield.

Do not operate the wipers if the windshield is dry It may scratch the glass.

If the washer does not work, check to see whether the washer tank is empty. For information on adding washer fluid, see "Adding washer fluid" on Page 101.

In cold weather, warm the windshield with the defroster before using the washer. This will help prevent icing, which could block your vision.

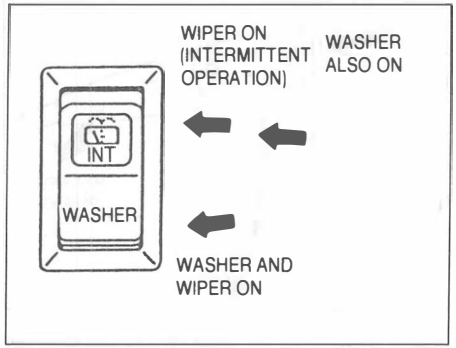
Windshield wiper and washer switch—SL, SLX and GS Models



For a single wipe, pull the lever toward you and release it.

The lever will return when you release it. The wipers will continue to operate if the lever is held toward you.

Rear window wiper and washers switch—Station Wagon



To turn the rear wiper and washer on, push the switch.

The rear wiper will operate at intervals when the switch is pushed on the "INT" side. By further pushing the switch on the "INT" side, the washer will also operate.

For operation of wiper plus washer, push the "washer" side of switch for required time.

If the washer does not work, check to see whether the washer tank is empty. For information on adding washing fluid, see "Adding washing fluid" on Page 101.

Warning lights
What to do if one comes on while driving

ITEM No *	IF LIGHT COMES ON...	DO THIS —
1	BRAKE	Stop and check
2	DOOR	Close all doors
3	CHARGE	Stop and check
4	PARK BRAKE	Release parking brake
5	LIGHTS	Replace bulb (except SL and SLX)
6	OIL	Stop and Check
7	Low fuel level warning light	Fill up the tank
8	CHECK	Take vehicle to Holden Dealer

*See paragraphs following for explanation of each item number

1. Brake System Warning Light

If this light comes on while you are driving, it indicates there may be something wrong with the brake system. You should immediately slow down, pull off the road and carefully stop the vehicle.

Check the brake fluid level of the see through reservoir (see "Checking the brake fluid", page 98).

If the brake fluid level is low . . .

At a safe place, test your brakes by starting and stopping.

* If you judge that the brakes still work adequately, drive cautiously to your nearest dealer or shop for repairs.

* If the brakes are not working, have the vehicle towed in for repairs.

Note: Special towing methods are required for vehicles equipped with automatic transaxles (see Section 4, page 73).

Continued normal driving with low brake fluid level is dangerous.

If the brake fluid level is correct . . .

Have the warning system checked by your Holden dealer.

2. Open door warning light
This light remains on until all the doors are completely closed.

3. Discharge warning light
This light indicates that the battery is being discharged. If it comes on while you are driving, **stop and check** for the cause.

After turning off the ignition, look first at the drive belt. If it is loose or broken, the alternator will not charge the battery properly. If the belt is all right, there is a problem somewhere in the charging system. The engine ignition will continue to operate, however, until the battery is discharged. Turn off the air-conditioner, blower, radio, etc., and drive directly to the nearest Holden dealer or repair station.

4. Parking brake warning light
If the light is on, make sure the parking brake is fully released. The light should then go off.

5. Rear Lights warning light
Should this light appear when the headlight switch is turned on (at first or second click-stop), it indicates that one or more of the tail lights is not functioning. If it comes on when the brake pedal is depressed, more than one stop light has failed. Have defective bulbs replaced as soon as possible.

6. Low oil pressure warning light
This light indicates that the oil pressure is low. If it flickers or stays on while driving, **pull off the road immediately and stop the engine.** First check the oil level, it may be low. If the level was low but adding oil does not cause the light to go out when the engine is restarted, turn it off immediately and call a Holden dealer for assistance.

Do not drive the car—even for a very short distance—until the cause is rectified. It may damage the engine.

The light may occasionally flicker when the engine is **idling** or it may come on briefly after a hard stop. There is no cause for concern if it then goes out when the engine is accelerated slightly. However, you should check the oil level at your next opportunity because it may be low. The light may come on when the oil level is too low. It is not designed to indicate low oil level, and the oil level must be checked using the level dipstick.

7. Low fuel level warning light
This light indicates that the fuel tank is nearly empty. Fill up the tank as soon as possible.

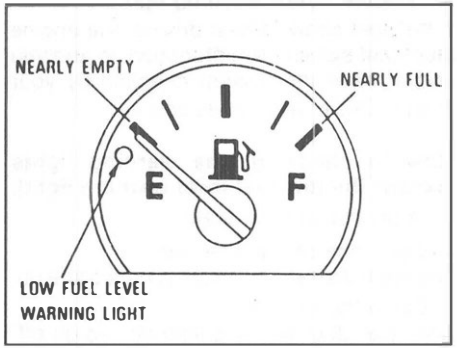
8. Engine check warning light
If the light shows whilst driving, the engine electrical system is malfunctioning and you should have the system checked by your Holden Dealer as soon as possible.

How to check all the warning lights (except the low fuel level warning light):

1. Apply the parking brake.
2. Open one of the side doors.
The open door warning light should come on.
3. Close the side door.
The open door warning light should go off.
4. Turn the ignition key to "ON", but do not start the engine.
All the warning lights except the open door warning light, low fuel level warning light and the brake system warning light should come on.
5. To check the brake system warning light, turn the key to "START" position. The warning light should come on whilst the key is in this position.

If warning light does not function, either the bulb is burned out or the circuit is in need of repair. Have it checked as soon as possible.

Fuel gauge—SL and SLX Models



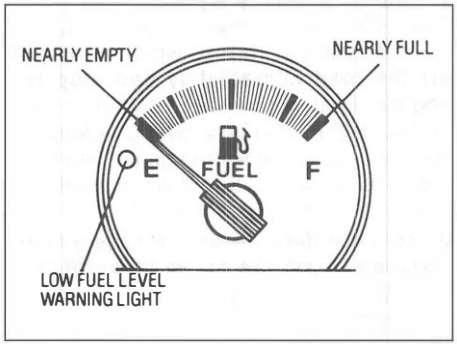
The gauge indicates the approximate quantity of fuel remaining in the tank.

It is a good idea to keep the tank over ¼ full.

This fuel gauge has a non-return type needle. Therefore, the needle will remain at the indicated fuel level position regardless of the position of the ignition switch.

Do not drive with the fuel level below the "E" or with the low fuel level warning light on. It may cause engine misfire, and damage to the catalytic converter.

Fuel gauge—GS and SLE Models



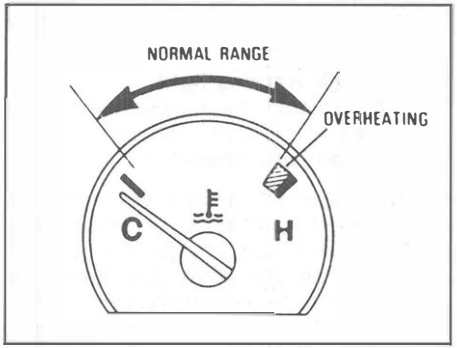
The gauge indicates the approximate quantity of fuel remaining in the tank.

It is a good idea to keep the tank over ¼ full.

This fuel gauge has a non-return type needle. Therefore, the needle will remain at the indicated fuel level position regardless of the position of the ignition switch.

Do not drive with the fuel level below the "E" or with the low fuel level warning light on. It may cause engine misfire, and damage to the catalytic converter.

Temperature gauge—SL and SLX Models

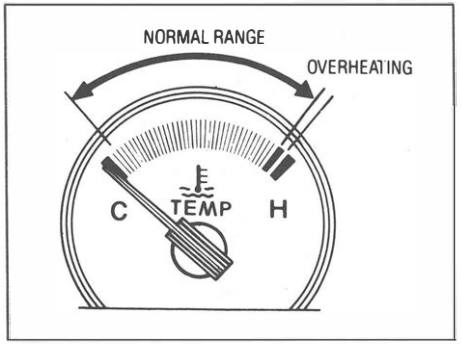


If the needle points to the red zone or higher, stop your car and allow the engine to cool

The gauge indicates the engine coolant temperature when the ignition switch is ON. The engine operating temperature will vary with changes in weather and engine load. (If your vehicle overheats, see page 67).

Do not continue driving with the engine overheated.

Temperature gauge—GS and SLE Models

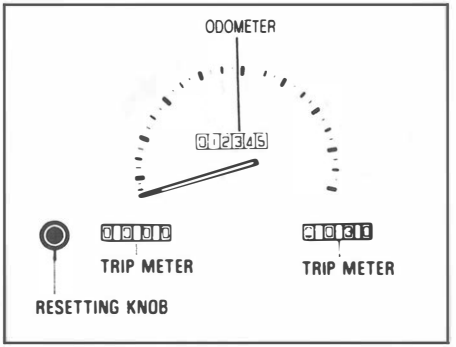


If the needle points to the red zone or higher, stop your car and allow the engine to cool

The gauge indicates the engine coolant temperature when the ignition switch is ON. The engine operating temperature will vary with changes in weather and engine load. (If your vehicle overheats, see page 67).

Do not continue driving with the engine overheated.

Odometer and tripmeter—Dual tripmeter type—GS and SLE Models



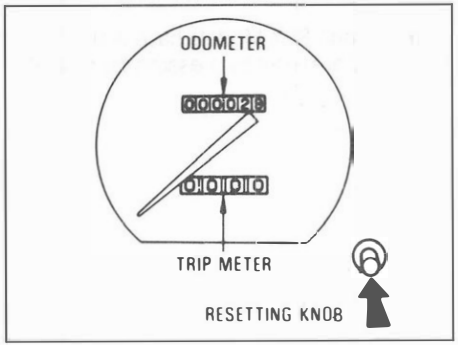
The odometer records the total distance the car has been driven. The trip meters may be set to record the distance on each trip and used to record fuel consumption.

One trip meter can be used for recording the distance travelled on a journey and the other can be reset each time the fuel tank is filled to enable the fuel consumption to be calculated.

To reset the left hand trip meter, press the resetting knob. Reset the right hand trip meter by turning the resetting knob clockwise and then pressing it.

Note: SL and SLX Models have a single trip meter and are reset by pressing the resetting knob.

Single tripmeter type—SL and SLX Models



Reset the tripmeter by pressing the resetting knob

Tachometer—GS and SLE Models

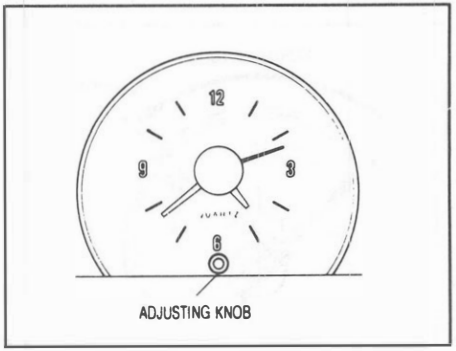
The tachometer indicates how many thousands of revolutions per minute (rpm) the engine crankshaft is rotating (engine speed) when the engine is running.

Tachometer readings may be used for the following:

1. To obtain the most favourable rpm for gear changing.
2. To select the most fuel efficient engine rpm.

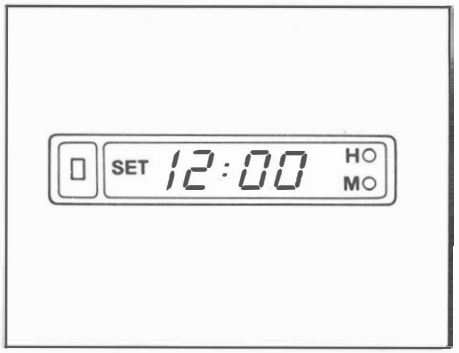
Do not run the needle into the red zone. This may cause engine damage.

Clock—SL and SLX Models



To set the clock hands, pull the knob and turn it clockwise to advance and counter-clockwise to retard.

Clock—GS and SLE Models



The digital clock indicates the time with the ignition key at the "ACC" or "ON" position.

When the tail lights are turned on, the brightness of the time indication will be reduced.

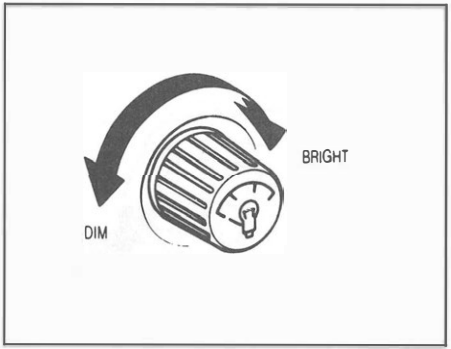
To reset the hour, depress the "H" button.

To reset the minute, depress the "M" button.

To adjust the time to an even hour, depress the "SET" button. For example, if the button is depressed when the time is between 1:01—1:29, the time will change to 1:00. If the time is between 1:30—1:59, the time will change to 2:00.

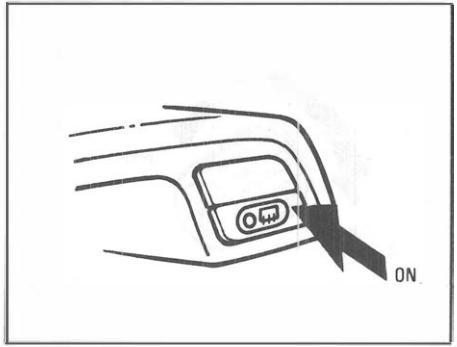
Once the electrical power source has been disconnected from the clock, the time is automatically set to 1:00 (one o'clock).

Instrument panel light control



To adjust the intensity of the instrument panel lights, turn the knob.

Rear Window defogger switch



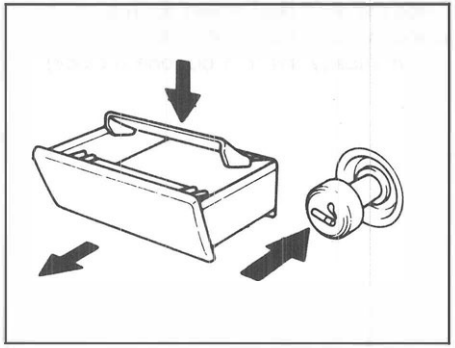
Push the defogger switch to clear condensation from the rear window. Use defogger only when engine is running.

The thin heater wires on the inside of the rear window will quickly clear the glass.

When cleaning the windows inside, be careful not to scratch or damage the heater wires on the rear window. Refer to page 79, for type of cleaner that can be used.

Always turn the switch off by pushing the switch a second time as soon as the rear window has been defogged.

Cigarette lighter and ashtray



To operate the cigarette lighter, press it in. When it becomes heated, it automatically pops out ready for use. To remove the ashtray, press down on the protector and pull out.

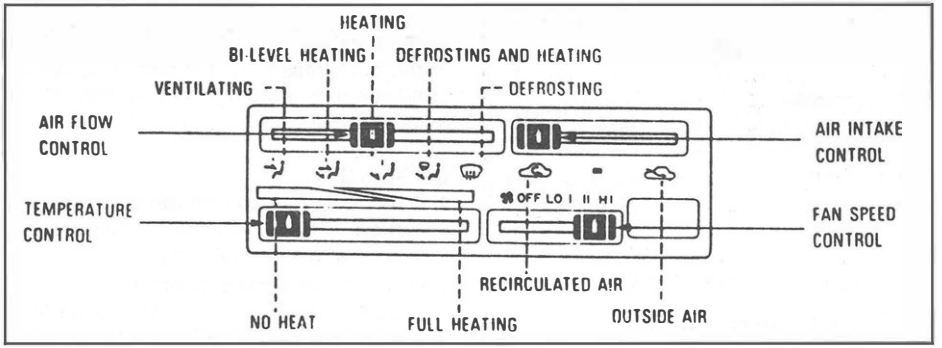
If the engine is not running, the key must be in the "ACC" position.

Do not keep the cigarette lighter pressed in when already heated.

After using the ashtray, push it back in completely. If not, the flame of a cigarette may cause other cigarette butts to burn, resulting in a fire.

The ashtray interior is illuminated when the parking lights are on.

Heater controls



Operation of the four controls is simple.

- The **air intake control** is used to select either fresh air from outside or recirculated air.
- The **air flow control** is used to select the air flow outlet (to the floor, to the dashboard vents, or to the windshield).
- The **temperature control** is used to adjust the temperature.
- The **fan speed control** is used to turn the fan on and off and to select one of the four fan speeds.

BI-LEVEL HEATING/HEATING

This is a heater setting in which there is a temperature difference between the air from the dash outlets and the air from the floor outlets.

- Move the **air intake control** to the OUTSIDE AIR position for *normal* heating or to the intermediate position for *faster* heating. For quickest results, move the control to the RECIRCULATED AIR position. Remember, however, that the faster the setting you use, the easier the windows will fog up.
- Move the **air flow control** to the HEATING position. This divides the heated air to the floor outlets and side vents and unheated air to the centre vents. If the heated air is desired from the centre vents also, use the BI-LEVEL HEATING position and adjust the **temperature control** to the most comfortable setting. This divides air flow between the dashboard vents and the floor outlets with the air from the floor outlets slightly warmer than that from the dashboard vents. The temperature difference varies from one temperature setting to another. When the outside air temperature is low and the windows fog up easily, place the control between the DEFROSTING and HEATING positions.
- Adjust the **temperature control** for the most comfortable setting. The WARM position gives maximum heating.
- Turn on the **fan speed control.**

VENTILATION

- Move the **air intake control** to the OUTSIDE AIR position.
- Move the **air flow control** to the VENTILATING position. This directs all the air to the dashboard vents.
- Adjust the **temperature control** for the most comfortable setting.
- Turn on the **fan speed control.**

DEFROSTING OR DEFOGGING

- Move the **air intake control** to the OUTSIDE AIR position.

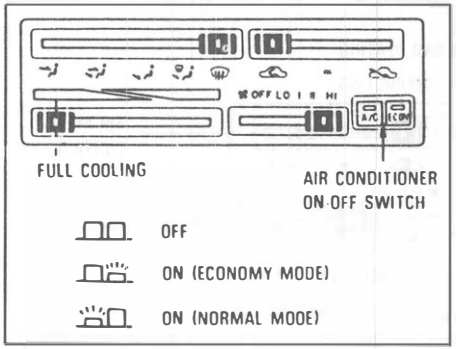
continued overleaf

- Move the **air flow control** to the DEFROSTING position. This divides the heated air to the windshield outlets and side vents and unheated air to the centre vents or wide flow vent. Open and adjust the side vents to direct the air flow to the side windows.
- Move the **temperature control** to the middle or the WARM position. The WARM setting will give the fastest results.
- Set the **fan speed control** on high speed. Once the windshield is cleared, the fan speed and heater temperature may be reduced.

OPERATING TIPS

- Be sure the air inlet grilles in front of the windshield are not blocked by leaves or other obstructions.
- When driving on dusty roads, close all windows and position the **air intake control** at OUTSIDE AIR and turn on the **fan speed control.**
- If following another vehicle on a dusty road, *or driving in windy and dusty conditions*, it is recommended that the **air intake control** be temporarily set to the RECIRCULATED AIR position, which will close off the outside passage and prevent outside air and dust from entering the vehicle interior.

Air conditioner controls



Air conditioner on-off switch

This is the only visible control added to the heater when your vehicle is equipped with air conditioning. When the air conditioner is operating, there will be a slight increase in fuel consumption. The most economical way to operate the unit, is to first set the heater controls to your requirement. Press the "NORMAL MODE" button and when the desired room temperature has been reached, press the "ECONOMY MODE" button. Should you want to decrease the room temperature, press the "NORMAL MODE" button again. To turn off the unit, push whichever switch is illuminated.

If the indicator light flashes, contact your Holden dealer as soon as possible. There may be a slippage of the drive belt or trouble in the compressor. If this happens, the air conditioner is automatically turned off to avoid damage to the drive belt.

COOLING

1 Push on the **air conditioner on-off switch.** The indicator light shows that the air conditioner is working.
2 Move the **air intake control** to the OUTSIDE AIR position for *normal* cooling or to the RECIRCULATED AIR position for *faster* cooling.
3 Move the **air flow control** to the VENTILATING position.
4 Adjust the **temperature control** for the most comfortable setting. The cool position gives maximum cooling.
5 Turn on the **fan speed control.** Intermediate or HI speed works best.

DEHUMIDIFIED HEATING

1 Push on the **air conditioner on-off switch.**
2 Move the **air intake control** to the OUTSIDE AIR position.
3 Move the **air flow control** to the HEATING position.

4 Turn on the **fan speed control.** Intermediate or HI speed works best.

5 Adjust the **temperature control** for the most comfortable setting.

VENTILATION (NO COOLING), HEATING, DEFROSTING OR DEFOGGING

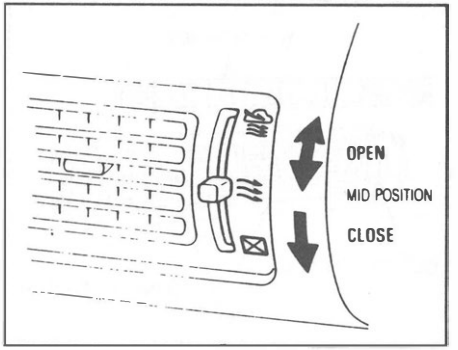
1 Push off the **air conditioner on-off switch.**

2 Use all the controls in the same way as described in "Heater controls".

OPERATING TIPS

- After parking in the hot sun, drive for the first few minutes with the windows open. After the excess heat has blown away, close the windows to keep out hot air.
- For best cooling efficiency, keep the windows closed.
- Move the air intake control to the OUTSIDE AIR position for normal air conditioning. For maximum cooling, place the control in the RECIRCULATED AIR position. However, since this does not allow fresh air to enter the vehicle, move the control to the OUTSIDE AIR position from time to time to change the air in the vehicle.
- In extremely humid weather, do not place the air flow control in the DEFROSTING position during the cooling operation. The difference between the temperature of the outside air and that of the windshield could cause the outer surface of the windshield to fog up, blocking your vision.
- See also "Operating tips" under "Heater Controls"

Side vents



The side vents may be opened or closed as shown.

The side vents allow both fresh air and heater/air conditioner unit air to flow directly into the vehicle. The amount of fresh air entering the vehicle through the vents depends on vehicle speed.

The side vents can be used to aid defrosting by opening and directing them on to the side windows.

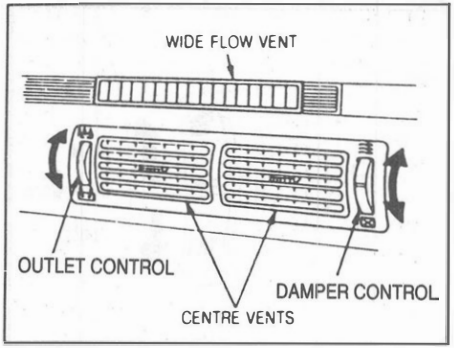
The side vents can be adjusted as follows:

Open position: Gives direct induction of outside air, irrespective of fan.

Mid position: For fan assisted air (hot or cold) as per temperature control adjustment.

Closed position: Air flow off.

Centre vents and wide flow vent



Turn the shut damper control to the OPEN position and set the ventilation outlet control to the desired position.

The ventilation **outlet control** is used to select the air flow outlet (to the **wide flow vent** or the **centre vents**).

Car audio operating tips

Ignition switch

You can listen to the car audio when the ignition key is at "ON" or "ACC". However, if the engine is not running, the key must be in the "ACC" position.

Antenna

Adjust the length of your antenna for best reception. Usually a short length is best in large cities and a fully extended antenna is best for distant reception.

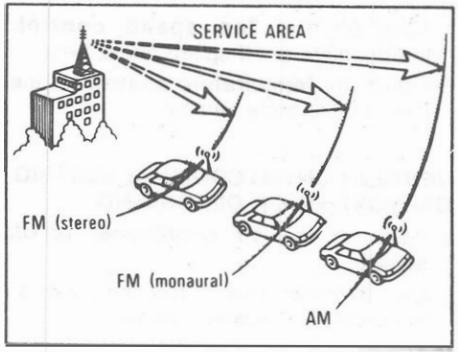
On some models, the antenna automatically extends to its full height when the radio is turned on with the ignition key at "ON" or "ACC", and retracts when either is turned off.

Before extending the antenna, confirm that there is no one close enough to be injured by the extending antenna.

NOTICE:

To prevent damage to the antenna, make sure it is retracted before running your vehicle through an automatic car wash.

Radio reception



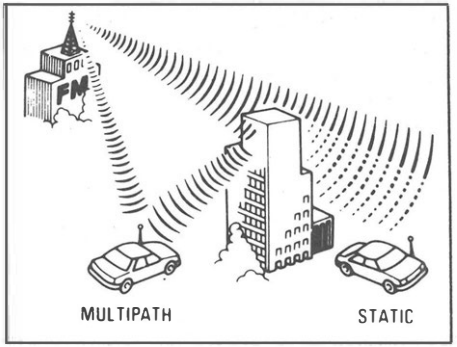
A vehicle is not an ideal place to listen to a radio. Because it moves, reception conditions are constantly changing. Buildings, terrain, signal distance and noise from other vehicles are all working against good reception. Some conditions of FM may appear to be problems when they are not. The following characteristics are completely normal for a given reception area and they do not indicate any problem with the radio itself.

Radio reception—continued

- **Fading and Drifting:** FM range is limited to about 40 kilometres, except for some high power stations.

  If a vehicle is moving away from the desired station's transmitter, the signal will tend to fade and/or drift. This is a more remarkable phenomenon than with AM, and is accompanied by distortion.

  Fading and drifting can be minimized to a certain degree by careful attention to fine tuning, or you should retune the radio to a stronger signal.



- **Static and Fluttering:** When the line-of-sight link between a transmitter and vehicle is blocked by large buildings or the like, the radio sound may be accompanied with static or fluttering because of the characteristic of FM. In a similar effect, a fluttering noise is sometimes heard when driving along a tree-lined road.

  This static and fluttering can be reduced by adjusting the tone control for greater bass response until the disturbance has passed.

- **Multipath:** Because of the reflecting characteristics of FM, direct and reflected signals may reach the antenna at the same time (multipath) and cancel each other out. As a vehicle moves through these electronic dead spots, the listener may hear a momentary flutter or loss of reception.

- **Station swapping:** When two FM stations are close to each other and an electronic dead spot, such as static or multipath area, interrupts the original signal, sometimes the stronger second signal will be selected automatically until the original one returns. This swapping can also occur as you drive away from the selected station and approach another station of a stronger signal.

Cassette tape player

Use only cassette tapes of good quality, having no damage. Avoid using tapes with a total playing time longer than 90 minutes.

Using damaged tapes will cause trouble with the tape player. Longer tapes are not recommended because of their thinness.

continued overleaf

Cassette tape player—continued

Be sure that the tape is not slack and that the label is firmly stuck on the case before insertion.

Have the tape firmly wound around the tape spools by turning the spools with a pencil or the like.

Be careful not to touch the exposed tape surface.

When not in use, take the cassette out of the player, put it back into its case and store it away from dust, magnets and direct sunlight.

Leaving the cassettes on the dashboard in the sun could result in damaged tapes.

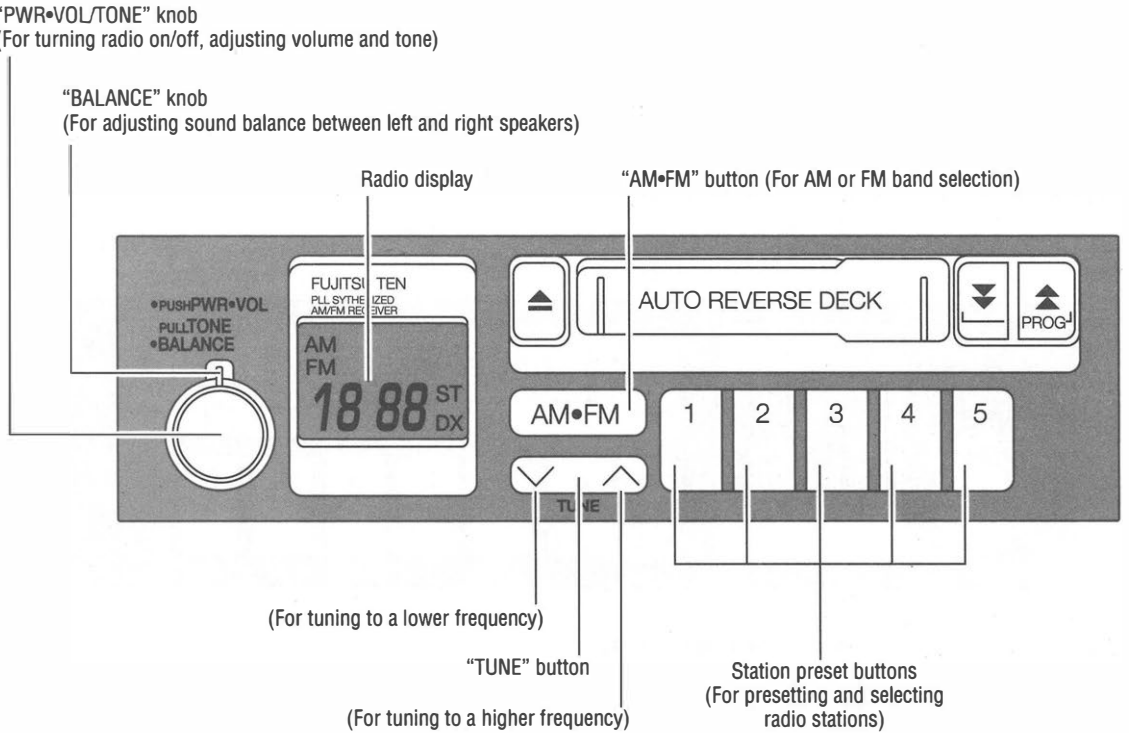
Keep the playback head, capstan and pinch roller clean.

Remove tape coating residue accumulated on the head, capstan and pinch roller once or twice a month. Use a special head cleaning cassette, available from most cassette retailers.

NOTICE:
Do not oil any part of the tape player and do not insert metal goods or a magnet into the slot, or the tape player may be damaged.

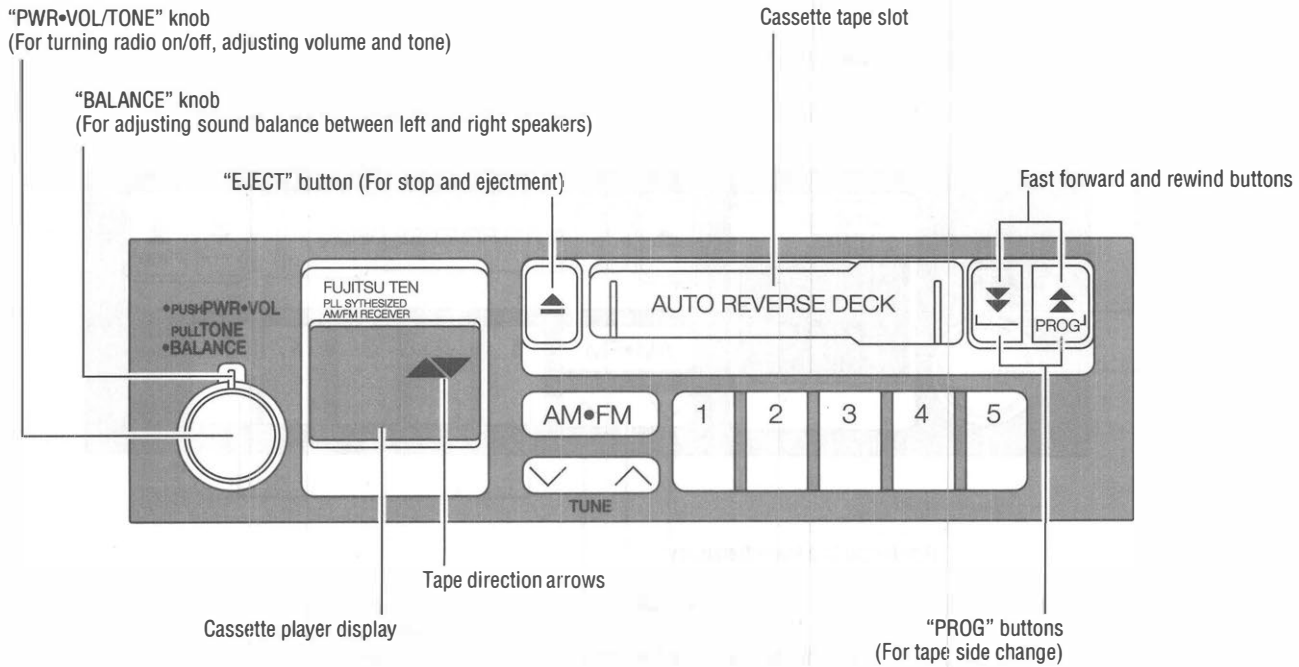
AM•FM radio/cassette player—2 speaker system—(SL and SLX models)

Radio



AM•FM radio/cassette player—2 speaker system—(SL and SLX models)

Cassette player



The Apollo SL and SLX models are equipped with an AM•FM radio/cassette player. The following outlines radio and cassette operating instructions. (For cassette player operating instructions, see "Listening to the cassette tape", page 34).

Listening to the radio

1. Push the "PWR•VOL" knob to turn the radio on.

2. Turn the "PWR•VOL" knob to adjust the volume.

3. Tune in to the desired station (See "Selecting a station" and "Presetting a station", this page.)

The radio will change automatically to stereo reception when a FM stereo broadcast is being received. At the same time, the stereo indicator "ST" will appear on the display.

4. Adjust the tone and sound balance. (See "Adjusting the tone balance" and "Adjusting the sound balance", page 34.)

5. To turn the radio off, push the "PWR•VOL" knob.

Selecting a station

1. Select the desired AM•FM band by pressing the "AM•FM" button. The display will indicate the band selected.

2. Tune in to the desired station using one of the following methods. The frequency will appear on the display.

(a) Preset tuning: Use for tuning in to a desired preset station. (See "Presetting a station", this page.)

Push the station preset button which has been preset to the desired station. The radio will tune in to the station and the button number will appear on the display.

(b) Seek tuning: Use for automatic station search and stop.

Press the "TUNE ∨" (seek tuning down) button for 0.5 of a second or more, until a beep sounds.

The radio will begin seeking down for a station of the nearest frequency and stop on reception. To select the next lowest frequency, press the button again.

Press the "TUNE ∧" (seek tuning up) button for 0.5 of a second or more, until a beep sounds. The radio will begin seeking up for a station of the nearest frequency and stop on reception. To select the next highest frequency, press the button again.

If the radio cannot seek out any stations in one pass because receiver signals are too weak, the radio will begin seeking again with sensitivity boosted for searching out weak stations. At this time, "DX" will appear on the display.

(c) Manual tuning: Press the "TUNE ∨" (manual tuning down) button. A series of short presses enables you to seek the next lowest frequency.

Press the "TUNE ∧" (manual tuning up) button. A series of short presses enables you to seek the next highest frequency.

Presetting a station

1. Tune in to the desired station. (See "Selecting a station", this page.)

2. Push one of the station preset buttons and hold it until a beep sounds. This sets the station to the button and the button number will appear on the display.

Each button can store one AM station and one FM station. To change the preset button to a different station, follow the same procedure.

Note: If the electrical power source (eg, battery, fuse, etc.) is disconnected, all memories stored in the preset buttons will be cancelled. In such a case, repeat steps 1 and 2 to restore present stations.

Adjusting the tone

The tone is adjusted by pulling out the PWR•VOL" knob (if pushed in) and turning the knob. To increase treble, turn the knob clockwise. To decrease treble, turn the knob counter clockwise.

Adjusting the sound balance

To balance the sound between the left and right speakers, turn the "Balance control" knob.

Listening to the cassette tape

1. Insert the cassette into the slot, with the tape side to the right, and lightly push it in. The cassette player will accept the cassette and automatically load the tape to play.

The tape will begin to play, regardless of "PWR•VOL" knob position. If the radio is on when inserting the cassette, the radio will automatically turn off.

2. Turn the "PWR•VOL" knob to adjust the volume.

3. Select your program. (See "Selecting a program", this page.)

4. Adjust the tone and sound balance. (See "Adjusting the tone" and "Adjusting the sound balance", this page.)

5. To turn the player off, push the "⏏" button, and the cassette will automatically eject. As this is done, the player will turn off and if the radio was on when the cassette was inserted, the radio will automatically turn on again.

Selecting a program

The program selector function allows the selection of programs on either side of the tape when it is playing.

1. Push both the "PROG" buttons simultaneously to change tape direction and the playing side. The "Tape direction indicators"on the display will indicate tape direction.

The player will automatically reverse directions at the end of the tape to play the other side.

2. Fast forward or rewind the tape as follows.

(a) Fast forward

Push in the button which indicates the same direction as the displayed "Tape direction indicator". When the end of the tape is reached, fast forward is cancelled and tape play resumes.

To stop fast forward, lightly push the other button. Tape play will resume.

(b) Rewind

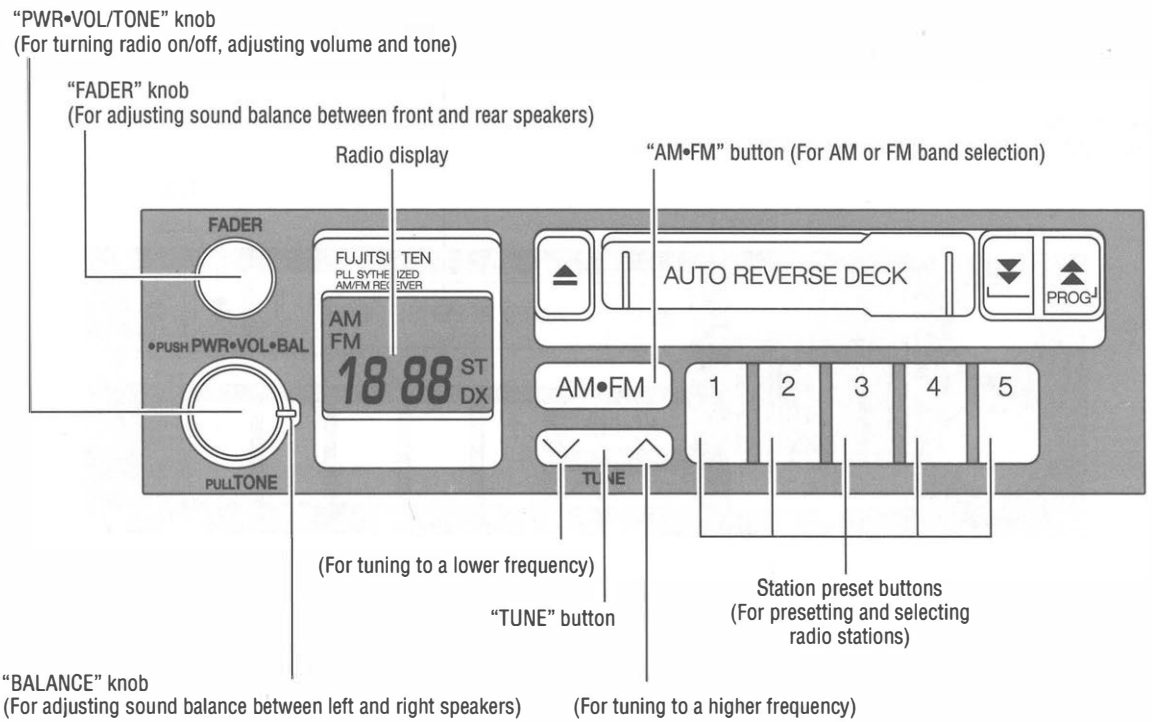
Push in the button which indicates the opposite direction as the displayed "Tape direction indicator". When the end of the tape is reached, rewind is cancelled and tape play resumes.

To stop rewind, lightly push the other button. Tape play will resume.

Note: During fast forward or rewind, both "Tape direction indicators" will flash on the display.

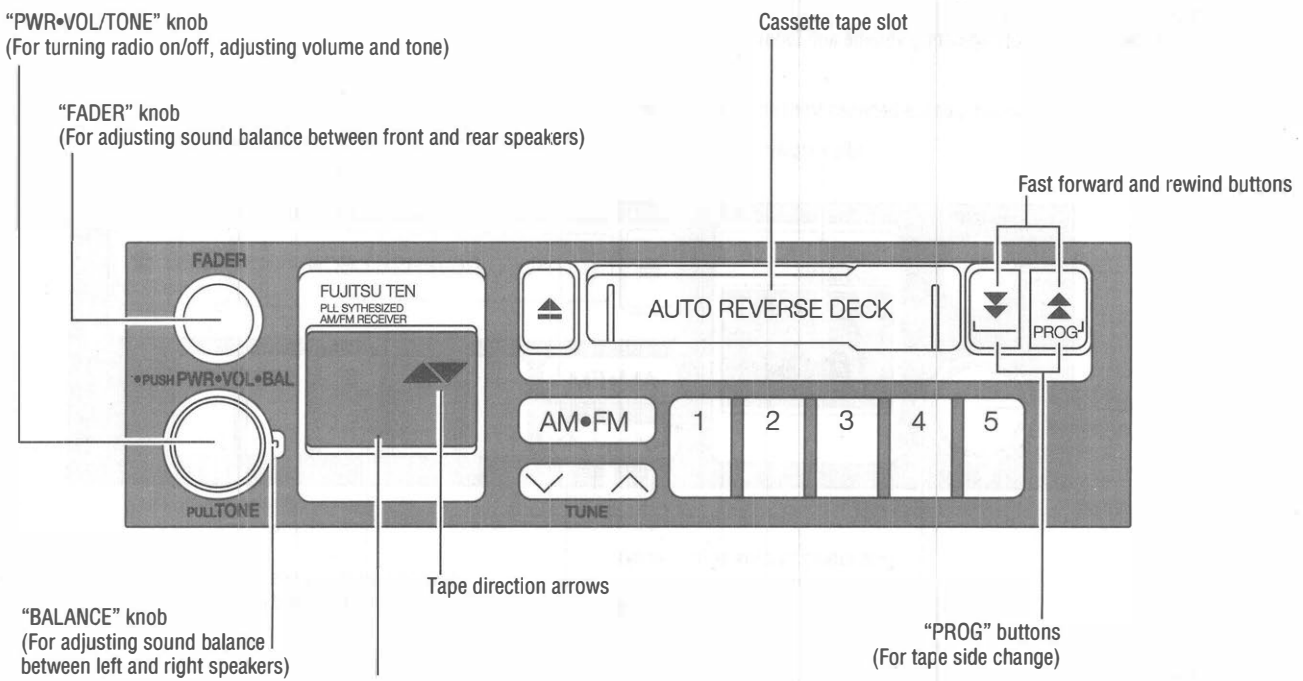
AM•FM radio/cassette player—4 speaker system (GS model)

Radio



AM•FM radio/cassette player—4 speaker system (GS model)

Cassette player



The Apollo GS models are equipped with an AM•FM radio/cassette player. The following outlines radio and cassette operating instructions. (For cassette player operating instructions, see "Listening to the cassette tape" page 38.)

Listening to the radio

1. Push the "PWR•VOL" knob to turn the radio on.

2. Turn the "PWR•VOL" knob to adjust the volume.

3. Tune in to the desired station. (See "Selecting a station" and "Presetting a station", this page.)

The radio will change automatically to stereo reception when a FM stereo broadcast is being received. At the same time, the stereo indicator "ST" will appear on the display.

4. Adjust the tone and sound balance. (See "Adjusting the tone balance" and "Adjusting the sound balance", page 38.)

5. To turn the radio off, push the "PWR•VOL" knob.

Selecting a station

1. Select the desired AM•FM band by pressing the "AM•FM" button. The display will indicate the band selected.

2. Tune in to the desired station using one of the following methods. The frequency will appear on the display.

(a) Preset tuning: Use for tuning in to a desired preset station. (See "Presetting a station", this page.)

Push the station preset button which has been preset to the desired station. The radio will tune in to the station and the button number will appear on the display.

(b) Seek tuning: Use for automatic station search and stop.

Press the "TUNE ∨" (seek tuning down) button for 0.5 of a second or more, until a beep sounds.

The radio will begin seeking down for a station of the nearest frequency and stop on reception. To select the next lowest frequency, press the button again.

Press the "TUNE ∧" (seek tuning up) button for 0.5 of a second or more, until a beep sounds. The radio will begin seeking up for a station of the nearest frequency and stop on reception. To select the next highest frequency, press the button again.

If the radio cannot seek out any stations in one pass because receiver signals are to weak, the radio will begin seeking again with sensitivity boosted for searching out weak stations. At this time, "DX" will appear on the display.

(c) Manual tuning: Press the "TUNE ∨" (manual tuning down) button. A series of short presses enables you to seek the next lowest frequency.

Press the "TUNE ∧" (manual tuning up) button. A series of short presses enables you to seek the next highest frequency.

Presetting a station

1. Tune in to the desired station. (See "Selecting a station", this page.)

2. Push one of the station preset buttons and hold it until a beep sounds. This sets the station to the button and the button number will appear on the display.

Each button can store one AM station and one FM station. To change the preset button to a different station, follow the same procedure.

Note: If the electrical power source (eg, battery, fuse, etc.) is disconnected, all memories stored in the preset buttons will be cancelled. In such a case, repeat steps 1 and 2 to restore preset stations.

Adjusting the tone

The tone is adjusted by pulling out the "PWR•VOL" knob (if pushed in) and turning the knob. To increase treble, turn the knob clockwise. To decrease treble, turn the knob counter clockwise.

Adjusting the sound balance

(a) Balance control

To balance the sound between the left and right speakers, turn the "Balance control" knob.

(b) Fader control

To balance the sound between the front and rear speakers, turn the fader control knob clockwise to increase the sound level at the front or counter clockwise to increase the sound level at the rear.

Listening to the cassette tape

1. Insert the cassette into the slot, with the tape side to the right, and lightly push it in. The cassette player will accept the cassette and automatically load the tape to play.

The tape will begin to play, regardless of "PWR•VOL" knob position. If the radio is on when inserting the cassette, the radio will automatically turn off.

2. Turn the "PWR•VOL" knob to adjust the volume.

3. Select your program. (See "Selecting a program" this page.)

4. Adjust the tone and sound balance. (See "Adjusting the tone" and "Adjusting the sound balance", this page.)

5. To turn the player off, push the "⏏" button, and the cassette will automatically eject. As this is done, the player will turn off and if the radio was on when the cassette was inserted, the radio will automatically turn on again.

Selecting a program

The program selector function allows the selection of programs on either side of the tape when it is playing.

1. Push both the "PROG" buttons simultaneously to change tape direction and the playing side. The "Tape direction indicators" on the display will indicate tape direction.

The player will automatically reverse directions at the end of the tape to play the other side.

2. Fast forward or rewind the tape as follows.

(a) Fast forward

Push in the button which indicates the same direction as the displayed "Tape direction indicator". When the end of the tape is reached, fast forward is cancelled and tape play resumes.

To stop fast forward, lightly push the other button. Tape play will resume.

(b) Rewind

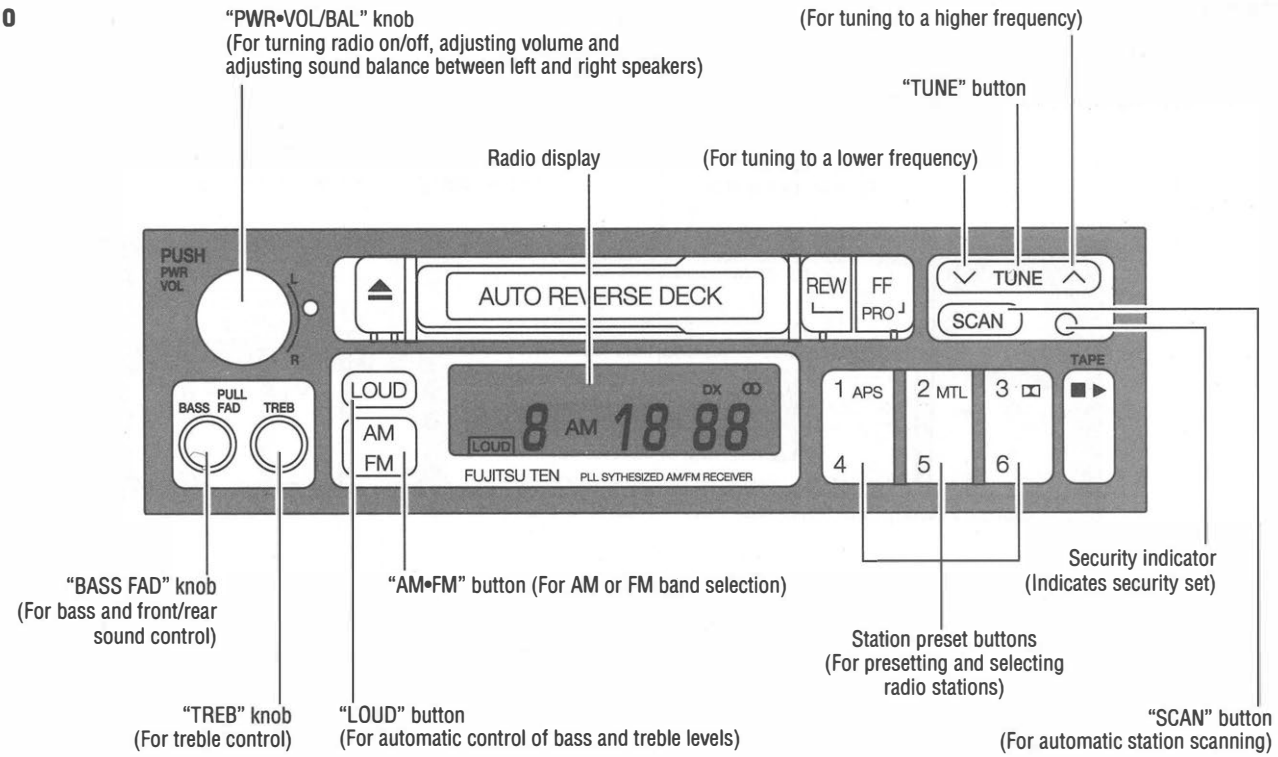
Push in the button which indicates the opposite direction as the displayed "Tape direction indicator". When the end of the tape is reached, rewind is cancelled and tape play resumes.

To stop rewind, lightly push the other button. Tape play will resume.

Note: During fast forward or rewind, both "Tape direction indicators" will flash on the display.

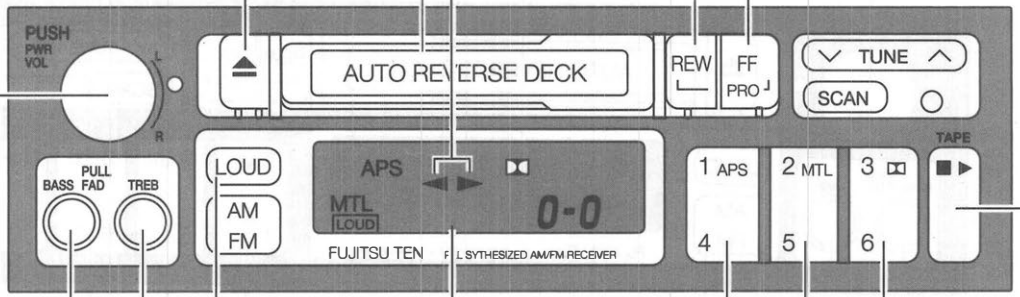
AM•FM radio/cassette player—4 speaker system—(SLE model)

Radio



AM•FM radio/cassette player—4 speaker system—(SLE model)

Cassette player



"PWR•VOL/BAL" knob
(For turning radio on/off, adjusting volume and adjusting sound balance between left and right speakers)

Cassette tape slot

Tape direction arrows

"TAPE" button
(To stop or restart playback)

"PRO" buttons (For tape side change)

"EJECT" button
(For ejecting the tape)

"REW" button
(For rewinding)

"FF" button
(For fast forwarding)

"BASS FAD" knob
(For bass and front/rear sound control)

"LOUD" button
(For automatic control of bass and treble levels)

Cassette player display

Dolby* NR button

"MTL" button
(For chrome/metal tape selection)

"TREB" knob
(For treble control)

"APS" button
(For automatic program selection)

The Apollo SLE models are equipped with an AM•FM radio/cassette player. The following outlines radio and cassette player operating instructions.

Listening to the radio

1. Push the "PWR•VOL" knob to turn the radio on.

2. Turn the "PWR•VOL" knob to adjust the volume.

3. Tune in to the desired station. (See "Selecting a station" and "Presetting a station", this page.)

The radio will change automatically to stereo reception when a FM stereo broadcast is being received. At the same time, the stereo indicator "ST" will appear on the display.

4. Adjust the tone and sound balance. (See "Adjusting the tone balance" and "Adjusting the sound balance", page 42.)

5. To turn the radio off, push the "PWR•VOL" knob.

Selecting a station

1. Select the desired AM•FM band by pressing the "AM•FM" button. The display will indicate the band selected.

2. Tune in to the desired station using one of the following methods. The selected frequency will appear on the display.

(a) Preset tuning: Use for tuning in to a desired preset station. (See "Presetting a station", this page.)

Push the station preset button which has been preset to the desired station. The radio will tune in to the selected station, and at the same time, the button number and frequency will appear on the display.

(b) Seek tuning: Use for automatic station search and stop.

Press the "∨" side of the "TUNE" button for 0.5 of a second or more, until a beep sounds. The radio will begin seeking down for a station of the nearest frequency and stop on reception. To select the next lowest frequency, press the button again.

Press the "∧" side of the "TUNE" button for 0.5 of a second or more, until a beep sounds. The radio will begin seeking up for a station of the nearest frequency and stop on reception. To select the next highest frequency, press the button again.

(c) Manual tuning: Press the "∨" side of the "TUNE" button with a series of short presses. This enables you to manually seek the next lowest frequency.

Press the "∧" side of the "TUNE" button with a series of short presses. This enables you to manually seek the next highest frequency.

Scan

Selecting "SCAN" mode enables one station after the other to be received in a sequence upwards for approximately 5 seconds.

To scan, press the "SCAN" button and a beep will sound. When the desired station is reached, press the "SCAN" button once again and scan will stop on that station.

If selecting a station with any of the previously described methods and the radio cannot seek out any stations in one pass because receiver signals are too weak, the radio will begin seeking again with sensitivity boosted for searching out weak stations. At this time, "DX" will appear on the display.

Presetting a station

1. Tune in to the desired station. (See "Selecting a station", this page.)

2. Push one of the station preset buttons and hold it until a beep sounds. This sets the station to the button and the button number will appear on the display.

A maximum of 12 stations (one AM and one FM in a preset button) can be programmed

continued overleaf

into memory. After presetting, just press the button to receive the station. To change the preset button to a different station, follow the same procedure.

Note: It is the electrical power source (eg, battery, fuse, etc.) is disconnected, all memories stored in the preset buttons will be cancelled. In such a case, repeat steps 1 and 2 to restore preset stations.

Adjusting the tone

Tone is adjusted by the following controls.

(a) Bass control

Press the "BASS•FAD" knob once and the knob will pop out. With the knob in the pop-out position, turn the knob clockwise to increase the bass level and counter clockwise to decrease the base level.

(b) Treble control

Press the "TREB" knob once and the knob will pop out. With the knob in the pop-out position turn the knob clockwise to increase the treble level and counter clockwise to decrease the treble level.

(c) Loudness control

When the sound level is low, bass and treble levels can be more difficult to adjust manually. By selecting the loudness control mode, bass and treble levels will be automatically adjusted to the correct level.

Loudness control mode can be selected at any sound level to automatically set bass and treble levels.

To select loudness control, press the "LOUD" button and any insufficient bass or treble levels will be corrected. At the same time "LOUD" appears on the display.

Press the "LOUD" button once again to cancel the loudness control mode.

Adjusting the sound balance

(a) Balance control

To balance the sound between the left and right speakers, pull out the "PWR•VOL" knob and turn.

(b) Fader control

To balance the sound between the front and rear speakers, press the "BASS•FAD" knob and the knob will pop out. From the pop-out position, pull the knob out and turn clockwise to increase the sound level at the front or counter clockwise to increase the sound level at the rear.

Listening to the cassette tape

1. Insert the cassette into the slot, with the tape side to the right, and lightly push it in. The cassette player will accept the cassette and automatically load the tape to play.

The tape will begin to play, regardless of "PWR•VOL" knob position. If the radio is on when inserting the cassette, the radio will automatically turn off.

If the cassette is already in the slot, press the "TAPE ■▶" button and play will commence.

2. When a chrome or metal tape is played, press the cassette selector button, "MTL". At this time "MTL" will appear on the display.

If using a tape recorded with Dolby NR*, push the "Dolby NR ◻◻" button. The Dolby NR indicator will appear on the display and the Dolby noise reduction system will operate. To play a tape recorded without Dolby NR*, push the button once again.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation "DOLBY" and the double-D symbol ◻◻ are trademarks of Dolby Laboratories Licensing Corporation.

4. Turn the "PWR•VOL" knob to adjust the volume.

5. Select your program. (See "Selecting a program", page 43.)

6. Adjust the tone and sound balance. (See "Adjusting the tone" and "Adjusting the sound balance", this page.)

7. To stop the tape, press the "TAPE ■▶" button. Tape play is placed on standby and

the tape will remain in the player. During standby, the radio will play if the "PWR•VOL" knob is on.

Press the "TAPE ■▶" button again and play will resume.

8. To eject the cassette, push the "▲" button. As this is done, the player will turn off. If the radio was on when the cassette tape was inserted, it will automatically turn on again.

Selecting a program

1. Push the "PRO" buttons simultaneously to change tape direction and the playing side. The tape direction indicators on the display will indicate tape direction.

The player will automatically reverse directions at the end of the tape to play the other side.

2. Select the desired program using either of the following methods.

(a) Manual program selection

Press the "FF" or "REW" buttons to either fast forward or rewind the tape. When fast forwarding or rewinding, the tape direction arrows on the display indicate tape direction. To stop fast forward or rewind, push the other button lightly.

During fast forward and rewind, the radio will play.

(b) Automatic program selection

Use for quick access to a desired program.

1. Press the "APS" button. At this time, "APS" will appear on the display.

2. To select the next program on, press the "FF" button. The player will automatically stop at the beginning of the next program and resume play.

To select the next program back, press the "REW" button. The player will automatically stop at the beginning of the next program back and resume play.

During automatic program selection, the radio will play while a program is being searched.

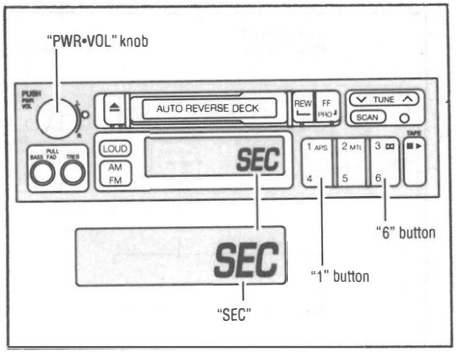
When the tape comes to an end during automatic program selection, normal play mode will resume.

Note: Automatic program selection may not work properly if the following conditions prevail.

1. If blank portions between programs are less than 3 seconds duration.

2. A tape which has programs recorded with a low sound level.

3. A tape which has programs with an unclear beginning or ending.



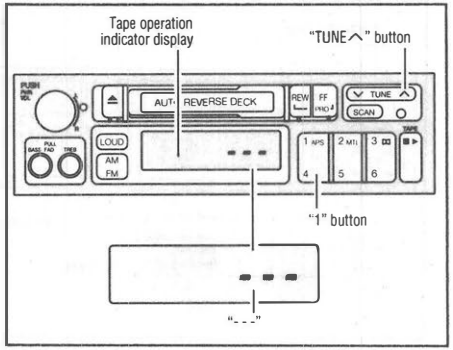
Anti-theft system

To deter theft of your audio unit the system is designed so that the unit becomes inoperable if it is stolen from the vehicle.

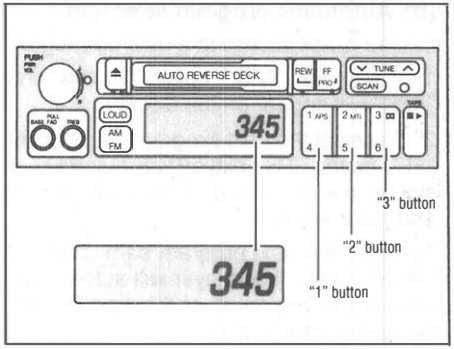
Setting the anti-theft system

1. Make sure that the radio is turned off with the ignition switch in "ACC".

2. While holding the "1 (APS)" and "6" buttons in, push and hold the "PWR•VOL" knob until "SEC" appears on the display.

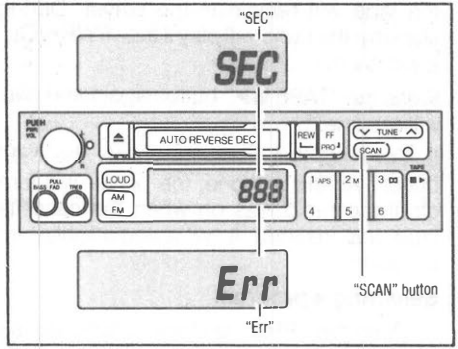


3. Press the "(1 APS)" button while holding the "TUNE ∧" button in. At this time the tape operation indicator ("---") will appear on the display.



4. Input your identification number by pressing the "1 (APS)", "2 (MTL)" and "3 ◻◻" buttons repeatedly. Use the "1 (APS)" button for the first digit, the "2 (MTL)" button for the second digit and the "3 ◻◻" for the last digit. For example, if your number is 345, press the "1 (APS) button 4 times, the "2 (MTL)" button 5 times, and the "3 ◻◻" button 6 times. If the display returns to "---", try imputing the number again.

The identification number is self-determined and it is recommended that your number be associated with something easy to remember. In case you are unsure of the number, write it in a notebook you normally carry. Do not leave it in your vehicle.

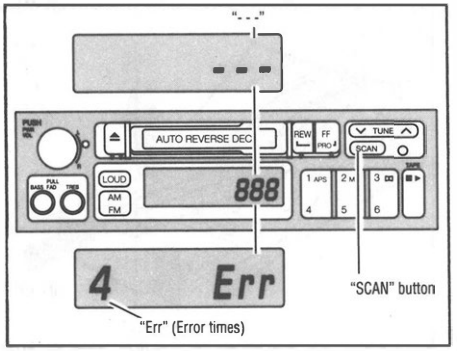


5. With your identification number appearing on the display, press the "SCAN" button and hold it until "SEC" appears on the display. "SEC" will go off to indicate the system is set. If invalid buttons have been used, "Err" will appear on the display before "SEC" appears. Try again from step 3.

Once the system is set, the security indicator will flash with the key in the "LOCK" position and "SEC" will appear on the display each time the key is turned to the "ACC" position.

To change the identification number for some reason, cancel the system (see "Cancelling the anti-theft system", page 45.) and set it again with a new number.

The system will be activitated if the electrical power source is ever disconnected from the radio unit. When the system is activated, the audio system cannot be turned on even after the power supply is reconnected and "SEC" appears on the display. If this happens, such as when the battery is discharged, see "If the anti-theft system is activated", page 46.



Cancelling the anti-theft system

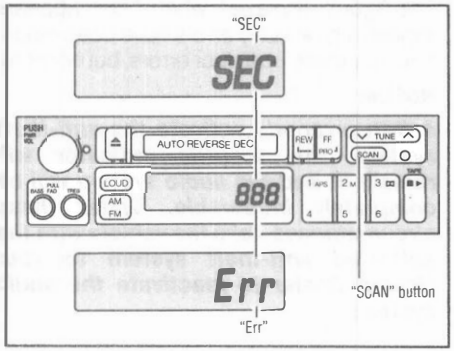
1. Follow the steps 1 to 4 described in "Setting the anti-theft system".

2. With your identification number appearing on the display, press the "SCAN" button and hold it until "---" appears on the display. "---" will go off to indicate the system is cancelled. If invalid buttons have been used, "Err" will appear on the display and "SEC" appears. Try again from step 3 in "Setting the anti-theft system".

The figure displayed when "Err" appears indicates how many errors have been made. You may make up to four errors, but no more.

Notice:

A fifth error will activate the anti-theft system, the security indicator will remain lit and the audio system will be completely inoperable. Under these circumstances, take the vehicle with the activated anti-theft system to your Holden Dealer to reactivate the audio system.



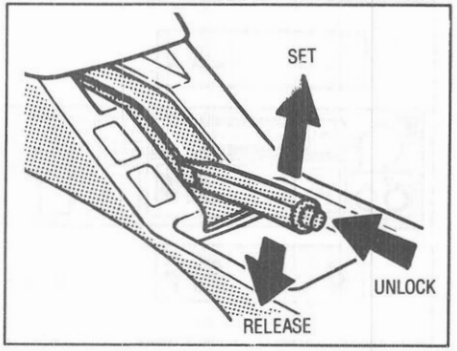
If the anti-theft system is activated

The audio system made inoperable by the activated anti-theft system will be operable if the correct identification number is entered.

1. Follow steps 3 and 4 described in "Setting the anti-theft system".

2. With your identification number appearing on the display, press the "SCAN" button and hold it until "SEC" appears on the display. "SEC" will go off to indicate that the system is reset and operable. If invalid buttons have been used, "Err" will appear on the display before "SEC" appears. If this occurs, try again from the beginning.

Parking Brake



To set: Pull up the lever.

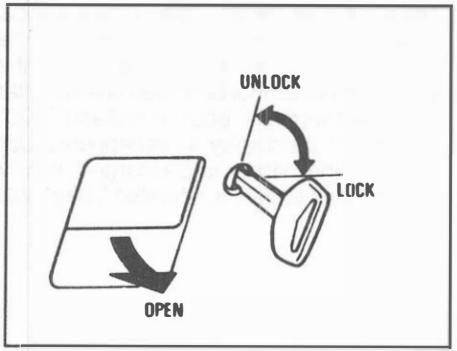
To release: Pull up slightly, press the thumb button, and lower.

If the foot brake should fail to operate while driving, you can make an emergency stop with the parking brake. However, the stopping distance will be much longer than normal.

When vehicle is equipped with automatic transaxle, always apply the parking brake BEFORE moving the transaxle shift lever into PARK. Similarly always move shift lever out of "PARK" before releasing parking brake.

Before driving, be sure that the parking brake is fully released and the parking brake reminder light is off.

Glovebox

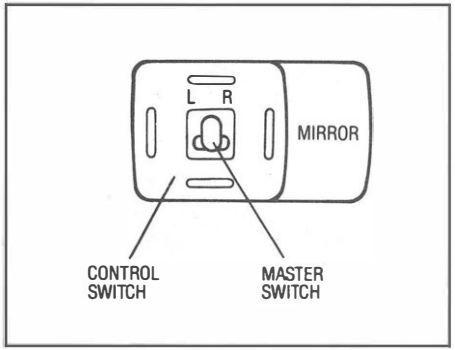


To lock and unlock the glovebox door, use only the master key. To open the glovebox door, pull the lever.

The interior of the GS and SLE models glovebox is illuminated when the parking lamps are switched on.

It is advisable to keep the glovebox door closed whilst driving as it will reduce the chance of injury should the vehicle be involved in an accident or emergency stop.

Power rear view mirror control—GS and SLE Models



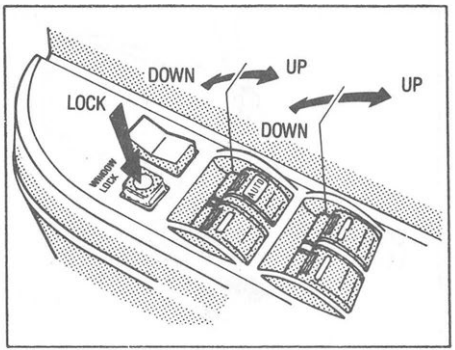
To adjust a power rear view mirror, first move the master switch to right or left, depending on which mirror needs adjusting, then push the control switch in the direction mirror is to be adjusted.

If ice should jam the mirror, do not operate the control switch or scrape the mirror face. Use a spray de-icer to free the mirror.

To provide the driver with a wider field of view from the left hand side power rear view mirror, the left hand mirror is equipped with convex mirror glass.

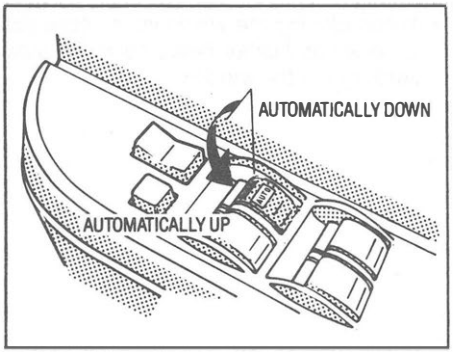
Note: Objects viewed in the left hand side power rear view mirror may be closer than they appear to be.

Power windows—SLE Model



To raise or lower the driver's window, pull or push the switch up or down. The passenger's windows can be opened or closed by the switches on the driver's door, or by the individual control on each door. The passenger's windows can be locked by pressing the "window lock" button on the driver's door.

With the "window lock" switch pressed in, none of the windows, except the driver's window can be raised or lowered. The indicator lights in the switches will tell you which of the switches can be operated.



To fully lower the driver's door window automatically, push the switch fully down. To stop the window partway, pull the switch for a second and release.

NOTE: The ignition key must be in the "ON" position. The window glass moves as long as the switch is pushed.

To avoid personal injury, observe the following.

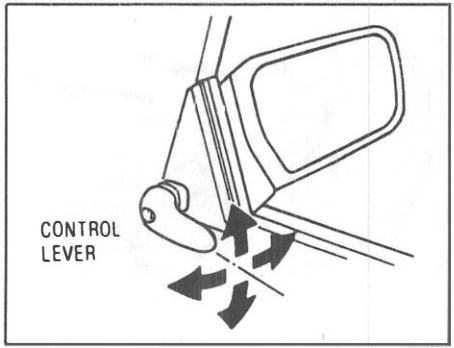
- *When small children are in the vehicle; take care not to allow them unexpected use of the switches. Use the "WINDOW LOCK" switch or, if you must leave them unattended, remove the key from the ignition switch.*

continued overleaf

Power windows—SLE Model (continued)

- *When closing the windows, be sure that no one has his/her head, hands or arms sticking out the window.*

Remote control rear view mirror

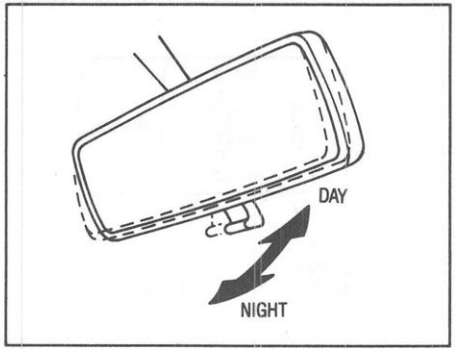


To adjust the remote control rear view mirrors, simply operate the control lever.

If ice should jam the mirror controls, do not force the control lever or scrape the mirror face. Use a spray de-icer to free the controls.

To prevent possible damage to the external rear view mirrors, exercise care when running your vehicle through an automatic car wash. If in doubt, first check with the service station attendant.

Day-night rear view mirror

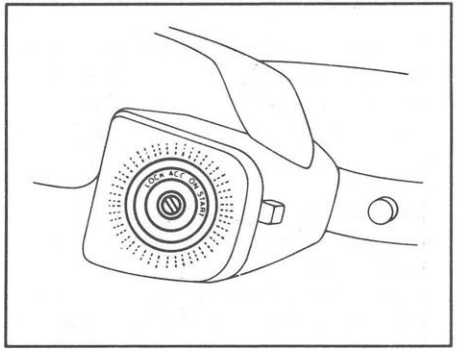


Pull the lever backward to reduce glare from the rear vehicle headlights during night driving.

Before adjusting the mirror to the position with most clarity, push the day-night change lever forward (daylight driving position).

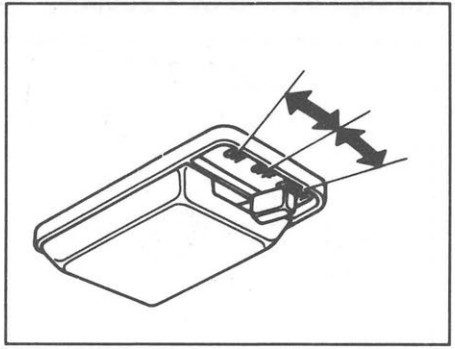
Remember that by reducing glare you also lose some rear view clarity.

Ignition switch illumination—SLE Model



To aid night time insertion of the ignition key, the ignition switch becomes illuminated for approximately 5 seconds after all the side doors have been closed.

Interior light



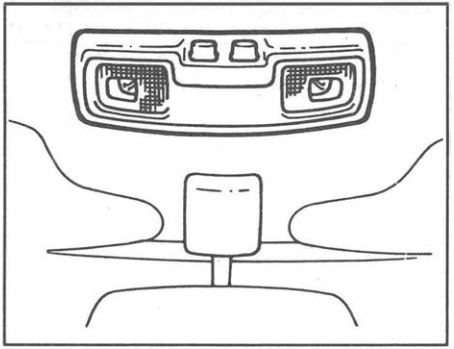
The interior light switch has three positions.

"ON": The light stays on until switch is turned to "OFF"

"DOOR": The light comes on while any door is opened.

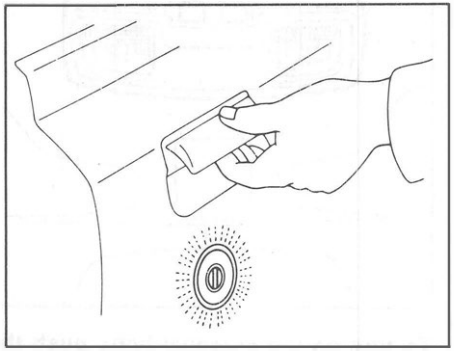
"OFF": The light remains off even with a door opened.

Personal lights—SLE Model



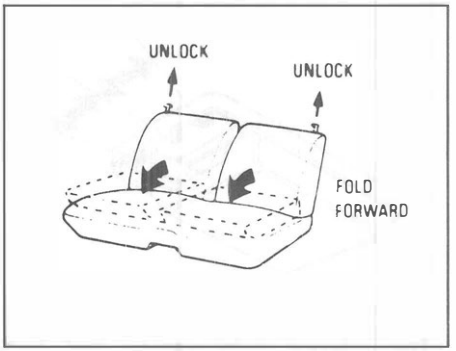
To turn on the personal light, push the switch.

Door lock light—SLE Model



For your convenience, the door lock can be illuminated for a few seconds to allow key insertion at night by lifting the door handle.

Fold-down rear seat back—Extra boot/luggage space (except SL and SLX Sedans)



To partly increase boot or luggage space, fold forward one or both rear seat backs using the following procedure.

1. **Adjust front seats to the most forward position and front seat backs to the vertical position.**
2. **Unlock rear seat backs and fold them down.**

   If desired, each rear seat back may be folded separately.

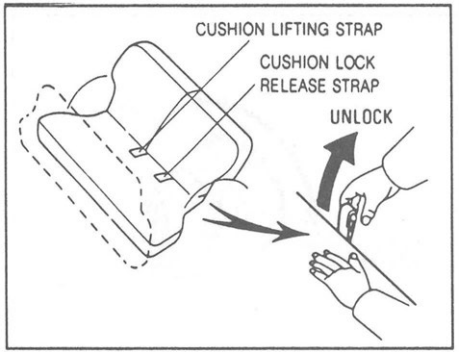
   After folding down rear seat backs, return front seats to the normal driving position.

Fold-down rear seat back

To revert to normal passenger carrying capacity, reverse rear seat folding and locking procedure, ensuring rear seat backs are locked securely back in the upright position and seat belts are accessible.

Caution: To reduce the possibility of luggage or goods placed behind the front seats becoming dangerous projectiles in the event of a sudden stop, they must be stowed below the top of the front seats and positioned so they are secure. Never allow anyone to ride in the cargo area. It is not designed for passengers. They could be injured in sudden braking.

Fold-down rear seat (seat back and cushion)—SLE Sedan, SL and SLX Station Wagon

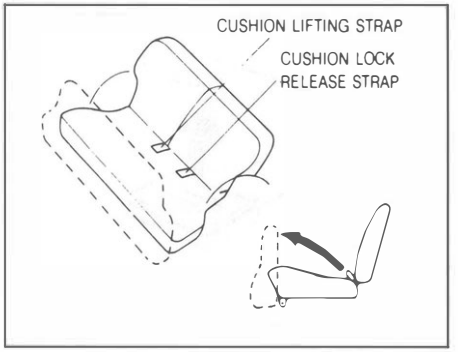


The boot/luggage area may be increased by folding forward the seat cushion and folding down the seat backs using the following procedure.

1. **Adjust front seats to the most forward position and front seat backs to the vertical position.**
2. **Push down on seat cushion adjacent to lock release strap and pull cushion lock release strap upward.**

Once the lock has been released, stop pushing and proceed to step 3.

Fold-down rear seat—SLE Sedan, SL and SLX Station Wagon—*continued*



3. **Lift rear seat cushion upward and forward using cushion lifting strap.**
4. **Unlock rear seat backs and fold them down while holding rear seat cushion forward.**

After folding down rear seat, return front seats and front seat backs to the normal driving position.

To revert to normal passenger carrying capacity, reverse rear seat folding and locking procedure. When returning rear seat cushion to its place, push the seat cushion at the lock release strap.

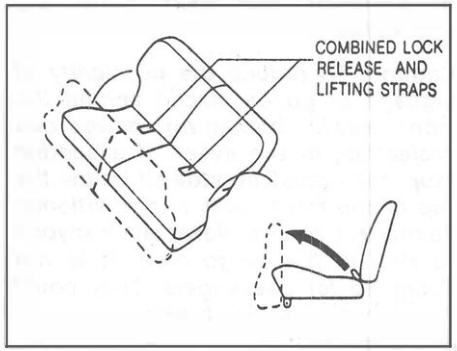
Ensure that both the rear seat cushion and rear seat backs are securely locked

Fold-down rear seat—SLE Sedan, SL and SLX Station Wagon—*continued*

in position and seat belts are accessible.

Caution: To reduce the possibility of luggage or goods placed behind the front seats becoming dangerous projectiles in the event of a sudden stop, they must be stowed below the top of the front seats and positioned so they are secure. Never allow anyone to ride in the cargo area. It is not designed for passengers. They could be injured in sudden braking.

Split folding rear cushions and seat backs—GS Model Station Wagon



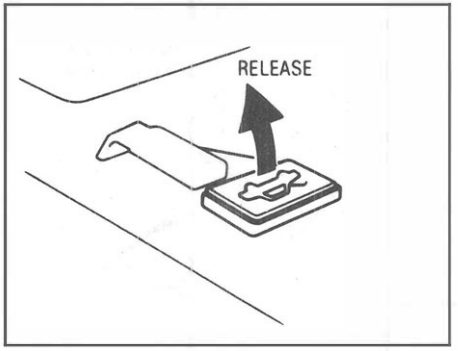
If desired, one side of the rear seat can be retained for passenger use and the other side folded down to increase luggage space.

Use the same rear seat folding and locking procedures previously described under "Fold-down rear seat—SLE Sedan, SL and SLX Station Wagon". To revert to normal passenger carrying capacity, reverse rear seat folding and locking procedure.

When the seats have been positioned for passenger use, always ensure that all the seat belts are accessible.

See caution this page.

Boot lid release, Sedans only

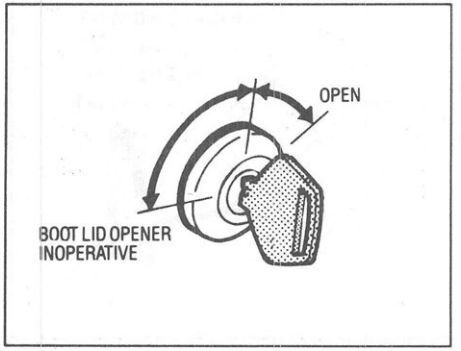


A boot lid release is situated on the floor to the right of the drivers seat.

Pull the release lever to open the boot lid whilst sitting in the car.

The boot lid release mechanism can be overridden by turning the key in the boot lock counter-clockwise (the override mechanism is cancelled when the boot is unlocked with the key). To help protect items locked in the boot, always use this feature when you have your vehicle parked.

Boot lid lock



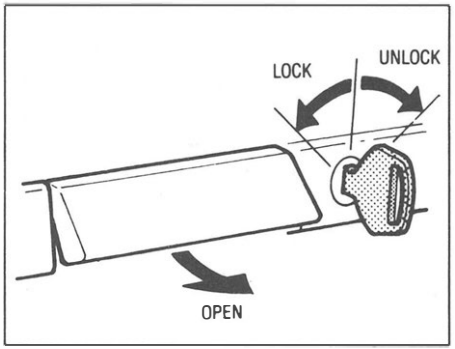
To open the boot lid, insert the key and turn it clockwise.

To close the boot lid, lower and press down on it. ***After closing the boot lid, try pulling it up to make sure it is securely closed.***

If you turn the key fully counter-clockwise after closing the boot lid, the boot lid lock release lever will not work. To help protect things locked in the boot, always use this feature when you have your vehicle parked. Remember however, not to leave valuables in the boot, as access may be gained via the fold down rear seat.

Keep the boot lid closed while driving. This prevents exhaust gases from entering the vehicle.

Tailgate



To open tailgate insert key in the lock, turn it counter-clockwise and remove, then lift the release catch and pull upward on the tailgate handle.

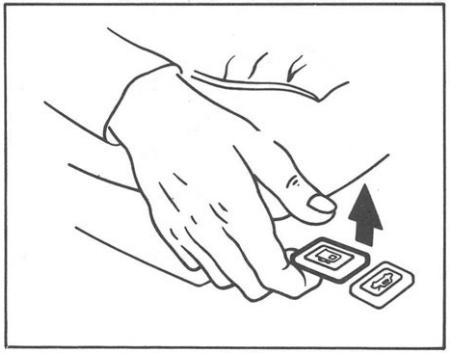
The tailgate will open completely by itself after it is raised halfway.

To close the tailgate, lower and press down on it. ***After closing the tailgate, try pulling it up to make sure it is securely closed.***

Keep the tailgate closed while driving. This prevents exhaust gases from entering the vehicle.

The GS Model Station Wagon tailgate can also be locked and unlocked automatically by the Power Tailgate Lock Switch explained on page 4.

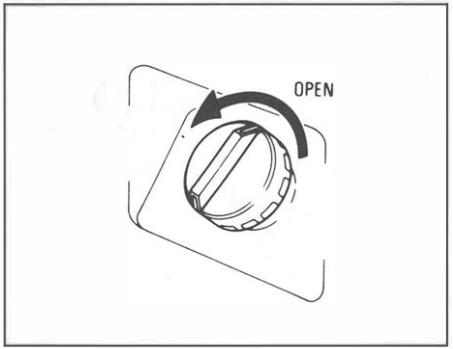
Fuel filler door release lever



A fuel filler door release lever is situated on the floor, to the right of the driver's seat.

To open the fuel filler door, pull the lever up.

Fuel tank cap



2. To remove the fuel tank cap, turn the cap slowly counterclockwise, then pause slightly before removing it.

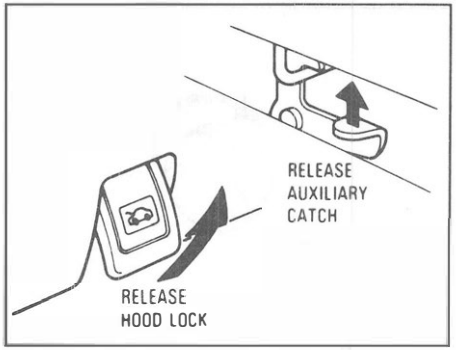
Do not remove the cap quickly. Fuel may be under pressure and spray out of the fuel filler neck under hot weather conditions, etc., which may cause injury. It is not unusual to hear a slight swoosh when the cap is opened.

To install the cap, turn the cap clockwise till you hear a click.

Make sure that the cap is tightened securely to prevent fuel spillage in case of an accident.

Use only a genuine Holden fuel tank cap for replacement. It has a built-in check valve.

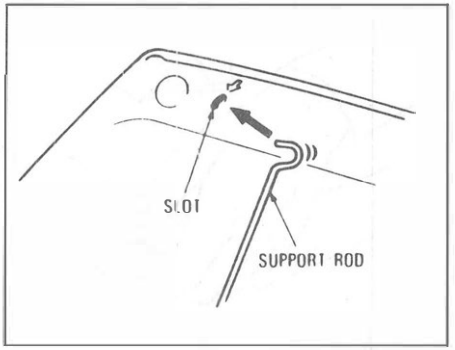
Hood release



Pull the hood lock release lever under the dash and the hood will spring up slightly. In front of the vehicle, press up on the auxiliary catch lever and lift the hood.

When closing, check to see that you have not forgotten any tools, rags, etc. Lower the hood and make sure it locks into place.

Hood support rod



After lifting the hood up, hold it open by inserting the support rod into the slot.

The end of the rod should be inserted into the slot in the front edge of the hood. ***Make sure the rod supports the hood securely.***

Before closing the hood, check to see that you have not forgotten any tools, rags, etc. and return the support rod to its clip—this prevents rattles. Then lower the hood and make sure it locks into place.

Before starting the engine

1. Check the area around the vehicle before entering it.
2. Apply the parking brake.
3. Adjust seat position, seatback angle, headrest height and steering wheel height.
4. Adjust inside and outside rear view mirrors.
5. Lock all doors.
6. Fasten seat belts.
7. Turn off unnecessary lights and accessories.

Remember to check that the warning lights function when turning the key to "ON", and check the fuel gauge to see that you have sufficient fuel.

Note: Refer to pages 18 and 19 for warning light check procedure.

How to start the engine (3S-FE engine)

Normal starting procedure

The electronic fuel injection system in your engine automatically controls the proper air-fuel mixture for starting. So you can start the cold or hot engine as follows:

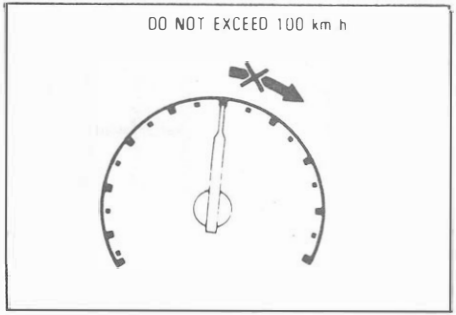
1. **Manual transaxle: Press the clutch pedal to the floor and shift the transaxle into neutral.** Hold the clutch pedal to the floor until the engine is started.

Automatic transaxle: Put the selector lever in "P" or "N" ("P" preferred.)

2. ***With your foot off the accelerator pedal,*** crank the engine by turning the key to "START" Release it when the engine starts. Do not crank for more than 15 seconds at a time if the engine does not start immediately.

3. After the engine has warmed up for about 10 seconds, you are ready to drive. If the weather is below freezing, let the engine warm up for a few minutes before driving. ***Do not race a cold engine or leave the vehicle while the engine is warming up.***

Tips for driving the first 1000 km

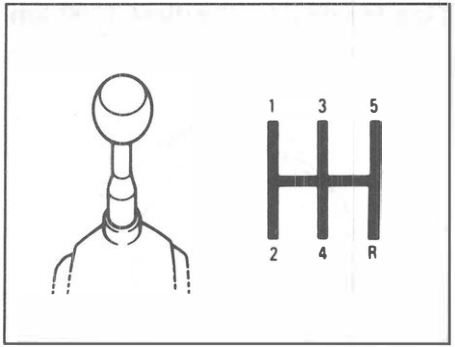


Drive gently and avoid high speeds.

You need not follow a "run-in" schedule with your new Holden. But following a few simple tips for the first 1000 km can add to the future economy and long life of your car:

- Do not drive over 100 km/h.
- Maintain engine speed between 2000 and 4000 rpm.
- Avoid full-throttle starts.
- If possible, avoid hard stops during the first 300 km.
- Do not drive slowly with the manual transaxle in high gear.
- Do not drive for a long time at any single speed, either fast or slow.
- Do not tow a trailer during the first 800 km.

Driving with a manual transaxle



The shift pattern is conventional as shown above.

Use the clutch correctly.

Press the pedal down fully while shifting, and then release it slowly. Do not rest your foot on the pedal while driving, because it will cause needless wear. And do not slightly release the pedal to hold the vehicle when stopped on an uphill grade—use the parking brake.

Recommended shifting speeds

- For good fuel economy and long engine life, you should upshift at the following speeds:

gear	APPROX SPEED 3S-FE engine km/h
1 to 2	24
2 to 3	40
3 to 4	64
4 to 5	72

Shifting too soon will cause lugging and, possibly, pinging. Regularly revving the engine to maximum speed in each gear will cause excessive engine wear and high fuel consumption. Make sure the vehicle is completely stopped before shifting into reverse.

- If you slow to less than the following speeds, such as when cornering downshift to the next lower gear.

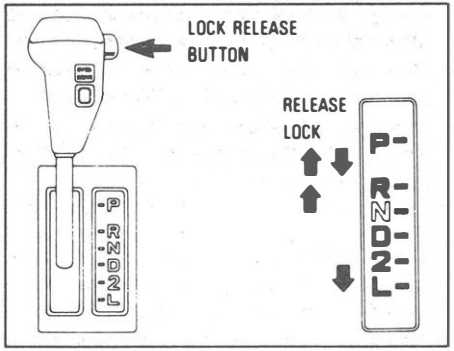
gear	km/h
2	15
3	28
4	40
5	50

The transaxle is fully synchronized and downshifting is easy.

Good driving practice

- When driving down a long hill, reduce your speed and downshift to a lower gear. The engine will provide a braking effect. Remember, if you ride the brakes, they may overheat and not work properly.
- Avoid overrevving the engine by slowing down before downshifting—especially on wet, icy, or snow covered roads—because it could cause a loss of traction.
- Always slow down in gusty crosswinds. Slowing down will allow you much better control.
- Make sure the vehicle is completely stopped before shifting into reverse. If it is difficult to shift into reverse, put the transaxle in neutral, release the clutch pedal momentarily, and then try again.
- Be careful when accelerating, upshifting, downshifting or braking on a slippery surface. The abrupt change in engine speed, such as sudden acceleration or engine braking, could cause the drive wheels to spin or skid.

Driving with an automatic transaxle



The transaxle uses a conventional sequence of selector positions.

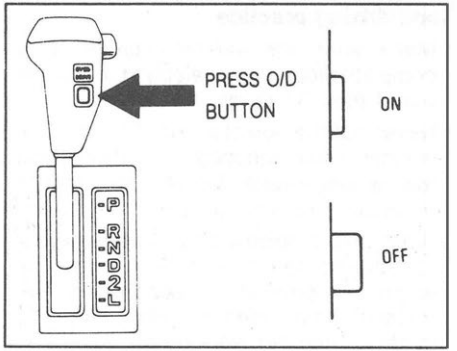
The lock release button must be depressed to move into or out of "P", to select "R" from "N" position, or to select "L". The function of the selector level positions is described below.

"P" range

Use to hold the vehicle in place after the parking brake is set. The engine can be started in this range. Never select this range with the vehicle moving.

"R" range

Use for backing up the vehicle. Select this range after the vehicle has stopped completely.



"N" range

No gears are engaged. The engine can be started in this range—or restarted while moving.

"D" range

This is the position for normal driving.

"2" range

Use for driving on mountain roads or for engine braking.

"L" range

Use for hard pulling through sand or mud for driving up and down steep hills and for more powerful engine braking than that in the "2" range.

For normal driving, put the selector in the "D" range and turn the overdrive switch on.

The Holden automatic transaxle is a highly efficient 4-speed unit. For best fuel economy, accelerate the vehicle from a stop by gradually increasing pressure on the pedal. The transaxle will automatically shift to the second, third and overdrive gears.

However, if engine coolant is below 50°C, the transaxle will not shift into the overdrive gear even with the overdrive switch on.

If you need to accelerate rapidly, push the accelerator pedal all the way to the floor. The transaxle will automatically downshift to the third, second or first gear, depending on your speed.

When the overdrive switch is turned off, the transaxle will automatically upshift from the first through second to third gear but will not upshift to the overdrive gear at all. Also, when the overdrive is switched off, the "OVERDRIVE (O/D) OFF" warning light will show on the instrument cluster.

continued overleaf

Using the "2" and "L" ranges.

With the selector in "2", the vehicle will start in the first gear and automatically shift to the second gear, but will not shift to the third gear. With the selector in "L", the transmission will not upshift at all. This gives you positive control over engine speed similar to that which you would have in a vehicle with a manual transaxle. The usual reason for selecting a lower range is to obtain engine braking when driving in the mountains or in heavy traffic.

Be careful not to exceed the following maximum allowable speed in each range when accelerating:

	km/h
"L"	"2"
54	100

Do not select the "2" range if you are going faster than the maximum allowable speed. The transaxle is not designed to withstand harmful engine overrevving when downshifting to the second gear.

Good driving practice

- Make sure the vehicle comes to a complete stop before selecting or moving out of the "R" range.
- Never put the selector into "P" until the vehicle is fully stopped. And always use the parking brake. Do not rely on the transaxle to hold the vehicle.
- When driving down a long hill, reduce your speed and select a lower range. The engine will provide a braking effect. Remember, if you ride the brakes, they may overheat and not work properly.
- Be careful when accelerating, upshifting, downshifting or braking on a slippery surface. The abrupt change in engine speed, such as sudden acceleration or engine braking, could cause the drive wheels to spin or skid.
- Always turn the overdrive switch on to improve fuel economy and quiet drive. However, if engine braking is needed when going downhill in the "D" range or if the transaxle is repeatedly upshifted and downshifted between the third and overdrive gears when climbing a gentle slope, it is suggested that the overdrive switch is turned off. Be sure to turn the switch on immediately afterward.
- Always slow down in gusty crosswinds. This will allow you much better control.
- Do not go from "P" or "N" to "R" or "D" with the accelerator pedal depressed.
- When towing a trailer, do not use overdrive in order to maintain engine braking efficiency and electrical charging performance.

Trailer towing

Your vehicle is designed primarily as a passenger carrying vehicle. Towing a caravan or trailer will have an effect on handling, performance, braking, durability and economy (fuel consumption, etc.). Your safety and satisfaction depend on the proper use of correct towing equipment and cautious driving habits. For your safety and the safety of others, you must not overload your vehicle or trailer. For maximum towing loads, refer to Section 9.

Ask your local Holden dealer for further details before towing. If you have no experience of towing a caravan or large trailer, seek advice before doing so.

Braking tips

Driving with the Holden tandem master cylinder brake system. The Holden tandem master cylinder brake system is a hydraulic system with two separate sub-systems. If either sub-system should fail, the other will still work. However, the pedal will be harder to press, and your stopping distance will be longer. Also, the brake system warning light may come on. ***Do not rely on a single brake system. Have your brakes fixed immediately.***

Driving with the brake booster. The brake booster uses vacuum to power-assist the brakes. If the engine should stop while you are driving, you can bring the vehicle to a stop with normal pedal pressure. There is enough reserve vacuum for one or two stops—but no more!

Do not pump the brake pedal if the engine stalls. Each push on the pedal uses up your vacuum reserve.

Even if the power assist is completely lost, the brakes will still work. But you will have to push the pedal hard—much harder than normal. And your braking distance will be longer.

Good braking practice

- Washing your car or driving through deep water may get the brakes wet. If they are wet, your car will require a longer stopping distance, and it may pull to one side when the brakes are applied. You should always test your brakes after getting them wet. The test is easy to make, you first ensure that the road is clear of traffic and pedestrians, then, whilst driving cautiously, press lightly on the brake pedal. If you do not feel the normal braking effect, the brakes are probably wet. To dry them, again drive cautiously whilst applying light pressure on the brake pedal.

If the brakes remain inefficient, pull off the road and call a Holden dealer for assistance.

- To drive down a long or steep hill, reduce your speed and downshift. Remember, if you drive the brakes excessively they may overheat and not work properly.
- Do not rest your foot on the brake pedal while driving. It can cause dangerous overheating, needless wear, and poor fuel economy.
- If you have a flat tyre while driving, do not brake suddenly. Keep a straight line while reducing speed. Then slowly move completely off the road to a safe place. (See "If you have a flat tyre" page 68.)
- When stationary with an air-conditioner switched on, the engine speed will automatically be higher than when the air-conditioner is off. In such circumstances, if your car is equipped with an automatic transaxle, you must apply the foot brake brake to prevent the vehicle from creeping.

  If the vehicle is going to be stationary for more than a few moments, move the selector lever to "N" position and apply the parking brake.
- When parking on a hill, turn the front wheels until they touch the curb so that the vehicle will not roll. Apply the parking brake, and place the transaxle in P (automatic) or in First or Reverse (manual). If necessary, block the wheels. ***Before moving off, always select the gear you want before releasing the parking brake.***

Caution: Do not place anything on the flat panel behind the rear seat back, as such items may be thrown about and possibly injure people in the car during sudden braking or an accident. Secure all items in a safe place (sedan only).

How to save fuel and make your car last longer

Making your Holden last and getting the best possible fuel economy is easy—just take it easy! Drive moderately and avoid fast starts and hard stops. Here are some specific tips to help save you money in both fuel and repairs.:

- Avoid lengthy engine warm-up idling. Once the engine is running smoothly, begin driving—very gently until the engine is warmed up.
- Avoid unnecessary idling—shut off the engine.
- Accelerate slowly and smoothly. Avoid kangaroo starts. Get into high gear as quickly as possible.
- Look ahead while driving to avoid unnecessary stops and to maintain a steady speed.
- Do not hit the curb when parking, and slow down when driving on rough roads. This will help keep the front end in alignment. Improper alignment not only causes faster tyre wear but also puts an extra load on the engine, which in turns, wastes fuel.
- Avoid high speeds. By reducing your speed from 100 to 80 km/h you will reduce fuel consumption and tyre wear.
- Do not carry unnecessary weight in the car.
- Keep the tyres inflated at the correct pressure (see tyre placard on end of driver's door). Check the pressure at least once a month. Under-inflation causes tyre wear and wastes fuel.
- Use the air-conditioner only when necessary.
- Do not rest your foot on the brake or clutch pedal while driving.
- With a manual transaxle, be careful to neither lug (engine speed too low for gear selected) nor overrev the engine while driving.
- Keep your car in good order to by making sure it is serviced properly at regular intervals. Section B of this book gives the service periods and contains Service Vouchers listing each item to be inspected.
- If you continually subject your car to any of the abnormal driving conditions given below, you should have certain items serviced more frequently (see Maintenance Schedule in Part "B" of this handbook).

Typical abnormal driving conditions

- Extensive idling such as taxis, police cars or door to door delivery vehicles.
- Repeated short trips (less than 8 km).
- Driving on rough and/or muddy roads.
- Driving on dusty roads.
- Camper or trailer towing.
- Driving in extremely cold weather and/or on salted roads.
- Repeated short trips in extremely cold weather.
- Keep the bottom of your vehicle free from mud, etc. This not only lessens weight but also helps prevent corrosion.
- Avoid continuous speeding up and slowing down. Stop-and-go driving wastes fuel.
- Avoid unnecessary stopping and braking. Maintain a steady pace. Try to time the traffic signals so you only need to stop as little as possible or take advantage of through streets to avoid traffic lights. Keep a proper distance from other vehicles to avoid sudden braking. This will also reduce wear on your brakes.

NOTE: Never turn off the engine to coast down hills. Your power steering and brake booster will not function without the engine running. Instead, downshift to an appropriate gear to utilize engine braking effect.

Pre-trip safety check

This checklist is for those many owners who like to "look over" their car themselves before starting out on a trip. A few minutes of checking can help ensure safe and pleasant driving. Just a basic familiarity with cars is required—and a careful eye! Or, if you would like, your Holden dealer will be pleased to make this check for you at a nominal cost.

If you make these checks in an enclosed garage make sure there is adequate ventilation. **Engine exhaust is poisonous.** (See page 62.)

Outside the car

Tyres and wheel nuts. Check the pressure (including the spare wheel—see page 111) with a gauge and look carefully for cuts, damage or excessive wear. Make sure all wheel nuts are tight.

Exhaust system. Look for cracks, holes, and loose supports. Start the engine and listen for any leakage. Have any leaks fixed immediately.

Fluid leaks. After the car has been parked for a while, check underneath for leaking fuel, oil, water, or fluid. Water dripping from the air-conditioner after use is normal.

Windshield wiper blades. Look for wear or cracks.

Lights. Make sure that the headlights, brake lights, tail lights and turn signals, are all working. Check the headlight aim.

Inside the car

Brakes. Make sure the brakes do not pull and that the pedal has enough clearance. (See page 105.)

Horn. Does it work?

Wipers and washer. Make sure that they both work and that the wipers do not streak.

Instruments and controls. Especially make sure that the speedometer, warning lights, instrument lights, and defroster are working.

Seat belts. Check that the buckles lock securely. Make sure that the belts are not worn or frayed.

Spare tyre and jack. Check the tyre pressure and make sure you have your jack and wheel nut wrench.

Spare fuses. Make sure you have spare fuses. They should cover all the amperage ratings designated on the fuse box lids.

Under the hood

Battery and cables. All the battery cells should be filled to the proper level and with distilled water. Look for corroded or loose terminals and a cracked case. Check the cables for good condition and connections.

Engine oil level. Check the level indicated on the dipstick with the car parked on a level surface. (See page 85.)

Coolant level. It should be near the upper mark on the see-through reservoir tank. (See page 87).

Windshield washer tank. Ensure that the washer tank is sufficiently full.

Radiator and hoses. Make sure the front of the radiator is clean—not blocked with leaves, dirt, or bugs. Check the hoses for cracks, kinks, rot, and loose connections.

Automatic transaxle fluid. Check the level indicated on the dipstick with the engine idling and the selector in Park. (See page 99.)

Wiring. Look for damaged, loose or disconnected wires.

Brake and clutch fluid level. It should be near the upper mark on the see-through reservoir. (See page 98.)

Engine drive belts. They should not be frayed or oily. When pressed with your thumb they should be within limits. (See pages 90 and 115.)

continued overleaf

Power steering fluid (if applicable)
With the engine idling, give the steering wheel several end-to-end turns and check the see-through reservoir. (See page 100 for instructions.)

Fuel lines. Check the lines for leaks or loose connections.

Instruments. Make sure that the speedometer and gauges are working.

Brakes. At a safe place make sure the brakes do not pull.

Anything unusual? Look for loose parts and leaks. Listen for abnormal noises.

If everything looks O.K. set your mind at ease and enjoy your trip!

Does your vehicle need repairing

Be on the alert for changes in performance, sounds, and visual indications showing that service is needed. Some important clues are as follows:

- Engine missing, stumbling, or pinging
- Appreciable loss of power
- Strange engine noises
- A leak under the car (however, water drainage whilst using the air-conditioner is normal.)
- Change in exhaust sound (this may indicate a dangerous carbon monoxide leak. Drive with the windows down and have it checked immediately.)
- "Flat"-looking tyre; excessive tyre squeal when cornering; uneven tyre wear.
- Car pulls to the side when driving straight on a level road.
- Strange noises related to suspension movement.
- Loss of brake effectiveness; "spongy" feeling brake or clutch pedal, pedal almost touches floor; car pulls to one side when stopping.
- Engine temperature continually higher than normal.

If you notice any of the above, take your car as soon as possible to a Holden dealer. It probably needs an adjustment or repair.

An important warning about the engine exhaust

Avoid inhaling the engine exhaust. It contains carbon monoxide, which is a colourless and odourless gas. It can cause unconsciousness or even death.

Make sure the exhaust system has no holes or loose connections. The system should be checked each time the oil is changed. If you notice a change in the sound of the exhaust, have the system checked immediately.

Do not run the engine in a garage or enclosed area except for the time needed to drive the car in or out. The exhaust gases cannot escape, making this a particularly dangerous situation.

Keep the trunk lid or back door closed while driving. An open or unsealed trunk or back door may cause exhaust gas to be drawn into the car. If you must drive with the trunk or back door open to accommodate a large object, you must force fresh air inside the car with the fan.

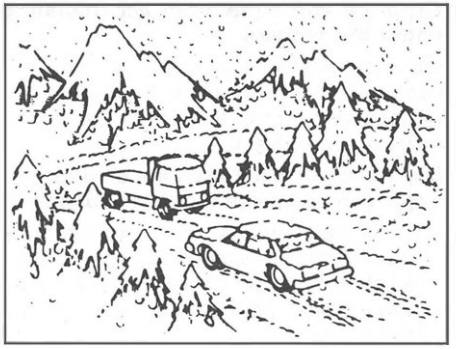
1. Close the windows.
2. Set the air intake control at OUTSIDE AIR, the air flow control at VENTILATION (for fresh air through the dashboard vents) and the fan on HI.
3. Open all dashboard vents.

Winter driving tips

To allow proper operation of the car ventilation system, keep the inlet grilles in front of the windshield and the outlet grilles in the rear quarter pillars clear of snow, leaves, or other obstructions.

Do not remain for a long time in a parked vehicle with the engine running. If it is unavoidable, however, do so only in an unconfined area and adjust the heating or cooling system to force outside air into the vehicle.

If you smell exhaust fumes in the car, drive with the windows down and the trunk lid or back door closed. Have the cause immediately located and corrected.



To prevent the coolant from freezing, make sure you have an ethylene-glycol based antifreeze containing a corrosion inhibitor in the radiator. The proportion of antifreeze varies according to the lowest anticipated temperature in your area and the quantity must be proportioned to the antifreeze manufacturer's specifications.

When replacing antifreeze with corrosion inhibitor, it is essential to use Holden Corrosion Inhibitor (part number 08812 00025-A). Use of non-Holden brands should be avoided.

To avoid possible harm to the engine, the mixing of the Holden product with any other additive or antifreeze must not occur.

For detailed information about changing the engine coolant and engine coolant conditioner selection, see Pages 88, 89 and 90.

NOTICE:

Use only ethylene-glycol antifreeze containing a corrosion inhibitor, together with clean demineralised or distilled water, in correct proportions according to the antifreeze manufacturer's specifications.

Do not use alcohol type antifreeze.

Check the condition of the battery and cables.

Cold temperatures reduce the capacity of any battery, so it must be in top shape to provide enough power for winter starting. Page 93 tells you how to visually inspect the battery. Your Holden dealer and most service stations will be pleased to check the level of charge.

Make sure the engine oil viscosity is suitable for the cold weather.

See page 85 for recommended viscosity. Leaving a heavy summer oil in your car during winter months may cause harder starting. If you are not sure about which oil to use, call your Holden dealer—he will be pleased to help.

Check the spark plugs and ignition system.

Make sure the plugs are not worn, fouled, or incorrectly gapped. (See pages 91 and 92.) Visually check the rest of the system for loose connections or obvious damage.

Keep the door locks from freezing.

Squirt lock de-icer or glycerine into the locks to keep them from freezing. To open a frozen lock, try warming the key before inserting it.

Keep ice and snow from accumulating under the fenders.

Ice and snow build up under your fenders can make steering difficult. During bad winter driving, stop and check under the fenders occasionally.

Depending on where you are driving, you might carry some emergency equipment.

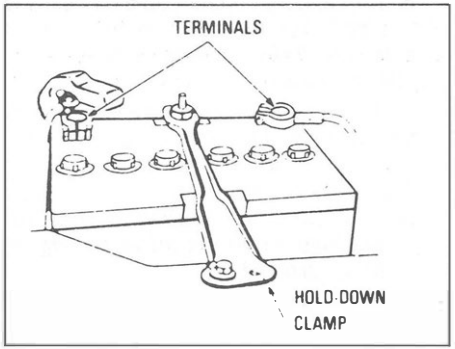
Some of the things you might put in a trunk are snow chains, window scraper, flares, small shovel, jumper cables, tools, etc (see "Snow Chains" page 114 for snow chain fitting information).

Wet and flooded road driving tips

Large amounts of water entering the engine compartment may cause damage to the engine and/or electrical components.

You should avoid driving through large amounts of standing water on the road.

If your vehicle will not start—Simple checks (see Do-it-yourself precautions page 84)

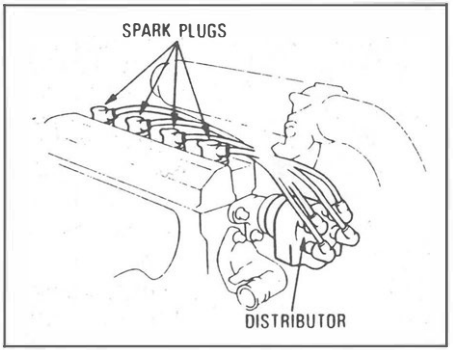


First, make these few simple checks . . .

- **If the engine is not turning over or is turning over too slowly—**

1. If your car has an automatic transaxle, make sure it is in Neutral or Park, and the parking brake is applied.
2. Under the hood, check both battery cables and the fusible links (see "Checking the fusible links" page 97.) Make sure that their connections to the battery, chassis, and starter are tight and clean.
3. Switch on the interior light. If it is out, dim, or gets dim when the starter is cranked, the battery is discharged. You may try jump starting (see next page). Do not try to push or pull start your vehicle. It may damage the vehicle or cause a collision when the engine starts. Also the catalytic converter may overheat and become a fire hazard.

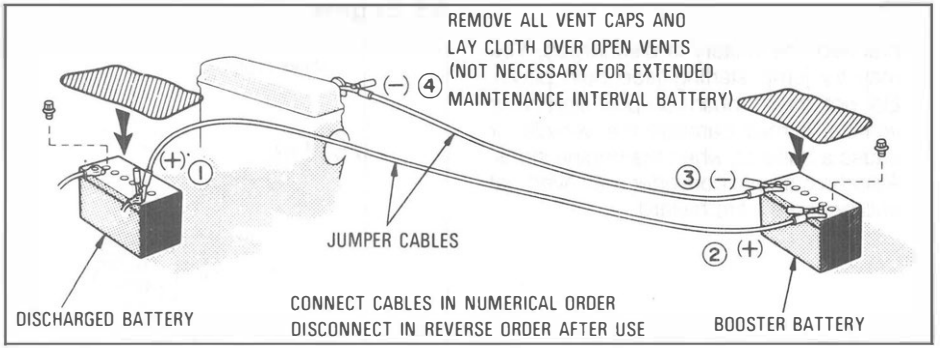
3S Engine



- **If the engine turns over at its normal speed but will not start—**

1. Check the fuel gauge.
2. Under the hood, check that all the push-on connectors are tight at the distributor spark plugs and ignition coil.
3. If you smell raw fuel the engine may be flooded—see the starting instructions. If it will not start, remove and dry the spark plugs, and then reinstall them.
4. If the engine will not start, it needs adjustment or repair. Call a Holden dealer for assistance.

Jump starting



Procedure for jump starting a car with a discharged battery.

To avoid serious personal injury and damage to your car which might result from battery explosion, acid burns, electrical burns, or damaged electronic components, these instructions must be followed exactly. If you are unsure about how to follow this procedure, we strongly recommend that you seek the help of a competent mechanic or towing service.

WARNING: Batteries contain sulphuric acid. Wear protective safety glasses when jump starting, and avoid spilling acid on your skin, clothing, or car. If you should accidentally get acid on yourself or in your eyes, ***flush immediately with water for at least five minutes, and then get immediate medical attention.*** If possible, continue to apply water with a sponge or cloth while en-route to the medical treatment (see also other advice under "Emergency measures" on page 93).

The gas normally produced by a battery will explode if a flame or spark is brought near. Therefore, do not smoke or light a match while jump starting.

The battery used for boosting must be 12-volt and negatively grounded. Do not jump start unless you are sure that the booster battery is correct.

1. Make sure that the vehicles are **not** touching. Turn off all unnecessary lights and accessories.
2. Remove all the vent caps from the booster and the discharged batteries. Lay a cloth over the open vents on both batteries. (These actions reduce the explosion hazard.)
3. If the engine in the vehicle with the booster battery is not running, start it and let it run for a few minutes.
4. Connect the jumper cables in the exact order shown in the illustration: ***positive-to-positive (+)***, and ***negative-to-engine*** or ***body ground (-)***. Note that you first connect the positive cable to the discharged battery and then to the booster battery. Next, connect the negative cable to the booster battery and then to a solid, stationary, metallic point (e.g. engine hanging hook) away from the battery. Do not connect it to or near any part that moves when the engine is cranked.

   When making the connections, do not accidentally let the jumper cables or clamps touch anything except the correct battery terminals or the ground. Do not lean over the battery when making the connections.
5. Start your engine in the normal way. After starting, run it at a fast idle speed (2000 rpm) for several minutes. Carefully disconnect the cables in the exact ***reverse*** order.

6. Carefully dispose of the battery cover cloths—they may now contain sulphuric acid.
7. Replace all the battery vent caps. If the cause of your battery discharging is not apparent (for example, lights left on), you should have its condition checked.

If your vehicle overheats

If your temperature gauge indicates overheating, if you experience a loss of power, or if you hear a loud knocking or pinging noise, the engine has probably overheated. You should follow this procedure . .

1. Pull safely off the road, stop the vehicle, put the transaxle in "P" (automatic) or neutral (manual) and apply the parking brake. Turn off the air conditioner if it is being used.

2. If coolant or steam is boiling out of the radiator or reservoir, stop the engine. Wait until the steam subsides before opening the hood. If there is no coolant boiling over or steam, leave the engine running and make sure the engine cooling fan is operating. If it is not, turn the ignition off.

3. Look for obvious coolant leaks from the radiator, hoses, and under the vehicle. However, note that water draining from the air conditioner is normal if it has been used. ***When the engine is running, keep hands and clothing away from the moving fan and engine drive belts.***

4. If the coolant is leaking, stop the engine immediately. Call a Holden dealer for assistance.

5. If there are no obvious leaks, check the coolant reservoir. If it is dry, add water to the reservoir while the engine is running. Fill it about half full.

Caution: ***The level of the coolant in the see through reservoir does not always indicate the coolant content of the system. For instance, if there has been a sudden loss of coolant, the level in the reservoir will not drop. On such an occasion, remove the radiator cap when the engine has cooled enough and check the coolant level. Top up the radiator if necessary. Always check for coolant leaks before restarting the engine. If a leak is found or the coolant level is dropping, contact your Holden Dealer before driving the vehicle.***

WARNING: Do not attempt to remove the radiator cap when the engine and radiator are hot. Serious injury could result from scalding hot fluid and steam blown out under pressure.

6. After the engine temperature has cooled to normal, again check the coolant level in the reservoir. If necessary, bring it up to half

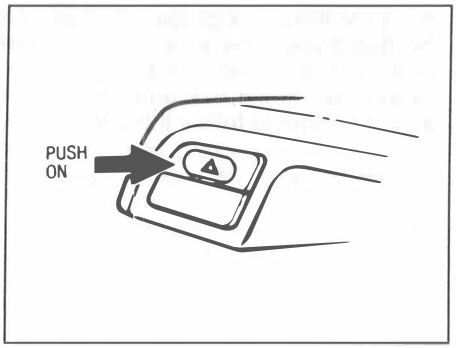
continued overleaf

If your vehicle overheats— *continued*

full again. Serious coolant loss indicates a leak in the system. You should have it checked as soon as possible at your Holden dealer.

Important:
The engine in your vehicle is equipped with a by-pass valve. Therefore, if the engine tends to overheat, removal of the thermostat would have an adverse effect, causing a lowering of cooling efficiency.

If you have a flat tyre



1. **First**, make sure you are completely off the road—well away from the traffic. Avoid stopping on the centre strip of a highway. Park on a level surface with firm ground.

Second, stop the engine and turn on your emergency flashers (press the switch, see above illustration).

Third, set the parking brake firmly and put the transaxle in Park (automatic) or Reverse (manual).

Fourth, have everyone get out of the vehicle on the side away from the traffic.

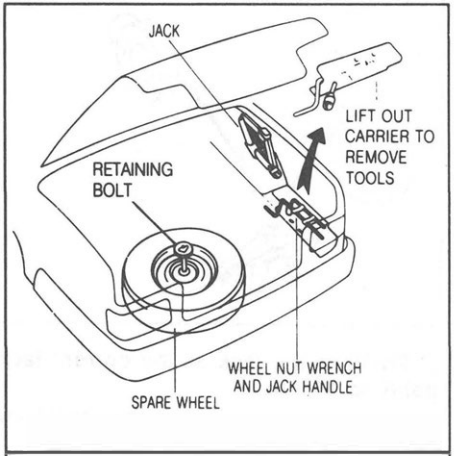
Fifth, read these instructions thoroughly. They are designed to help a person who has never changed a wheel.

Jacking precautions

To reduce the possibility of personal injury:

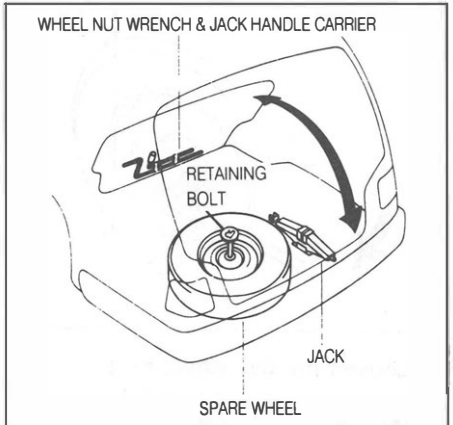
- Following jacking instructions.
- Use a jack only for lifting your vehicle during wheel changing.
- Never get beneath the vehicle when supported by a jack.
- If small boulders, house bricks or suitable timbers are available at the site, use them to block (chock) the wheels diagonally opposite the flat tyre. This will stop the vehicle from rolling when it is jacked up. This is a good safety precaution.
- Do not start or run the engine while your vehicle is supported by a jack.

Removing the spare wheel



SEDAN

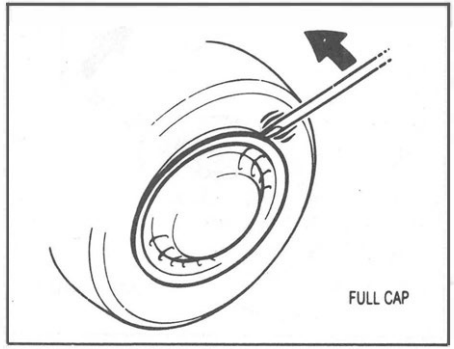
1. Roll back the carpet and lift trunk floor to expose spare wheel.
2. Remove wheel retaining bolt.
3. Remove spare wheel.
4. Lift the wheel, nut wrench and jack handle carrier from trunk floor.
5. Remove the wrench and handle from the carrier.
6. Release jack from its retainer by screwing the jacking mechanism together.



STATION WAGON

1. Roll back the luggage compartment carpet and lift the floor to expose the spare wheel, wheel nut wrench and jack handle.
2. Remove wheel retaining bolt
3. Unclip wheel nut wrench and jack handle.
4. Remove spare wheel.
5. Release jack from its retainer by screwing the jacking mechanism together.

Removing wheel cover or hub ornament

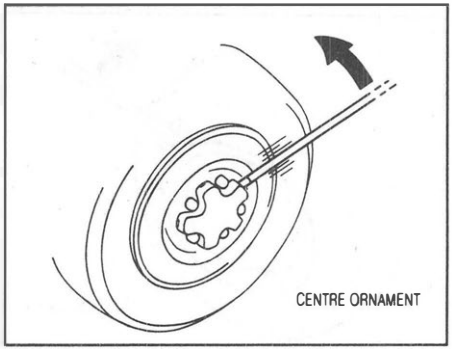


1. **Use the wheel nut wrench to remove the wheel cover, or wheel hub ornament.**

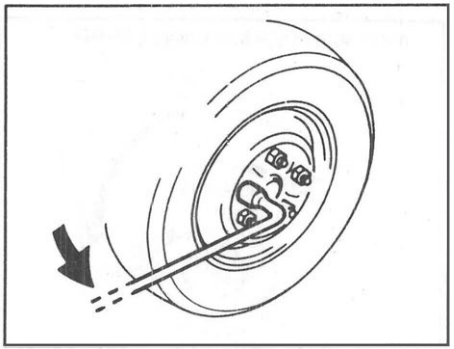
Push the bevelled end of the wrench under the edge of the wheel cover or wheel hub ornament and twist against the wheel. ***Do not attempt to pull off the wheel cover or wheel hub ornament.***

continued overleaf

Removing wheel cover or hub ornament—*continued*



Loosening wheel nuts



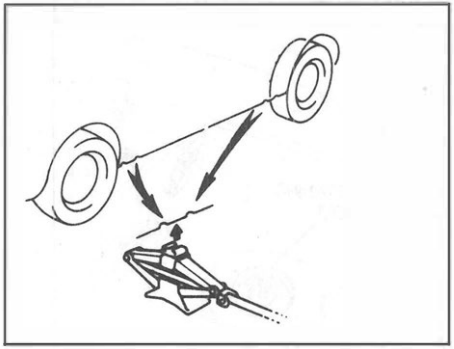
2. **Loosen the five wheel nuts.**

You should always loosen the wheel nuts ***before raising the car.***

The nuts turn counter-clockwise to loosen. To get maximum leverage, fit the wrench to the nut so that the handle is on the left side, as shown above. Hold the wrench near the end of the handle and press it downward. Always ensure that the wrench is properly fitted and be careful that it does not slip off the nut.

Do not remove wheel nuts at this stage.

Jack points

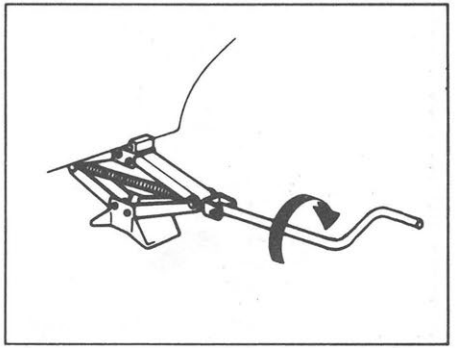


3. **Position the jack at the correct jack point as shown.**

Look for the two notches in the underbody side seam.

Make sure that the jack is positioned on level and solid ground.

Raising your vehicle



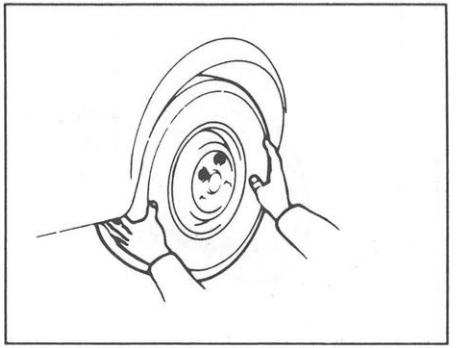
4. **After making sure that no one is in the vehicle, raise the car high enough for the spare wheel to be installed.**

To raise the car, insert the handle (it is a loose fit into the jack) and turn the handle ***clockwise***. As the jack touches the car and begins to lift some weight, double-check that it is properly located. ***Never get under the car when it is supported only by a jack, use a vehicle support stand.***

If the tyre is quite flat, remember to raise the car enough so that the spare wheel—which is not flat at the bottom—will have clearance to be fitted.

Always have the spare wheel close by in readiness for the change over.

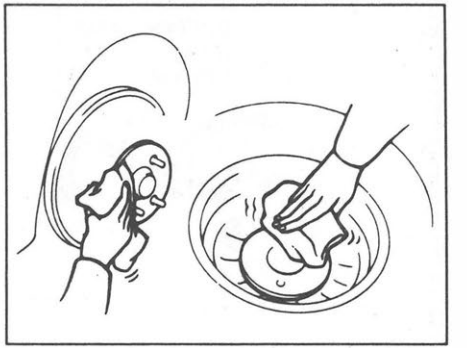
Changing wheels



5. **Remove the wheel nuts, change wheels and reinstall the wheel nuts finger tight.**

Remove defective wheel and then roll the spare wheel into position and align the holes in the wheel with the bolts. Then lift up the wheel and get at least the top bolt started through its hole. Wiggle the wheel and press it back over the other bolts.

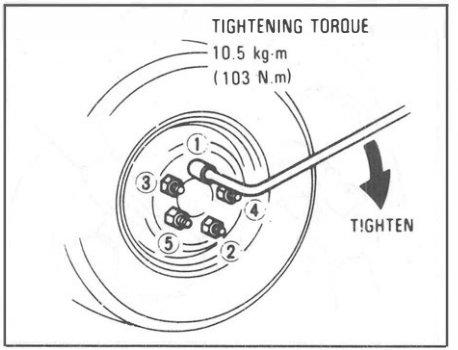
Reinstall the five wheel nuts (tapered end inward) and tighten them as much as you can by hand. Press the wheel back and see if you can tighten them more.



NOTE: Before refitting the wheel, remove any foreign matter on the stub axle and wheel hub surface.

Installation of wheels without good metal-to-metal contact at the mounting surface can cause wheel nuts to loosen and eventually cause a wheel to come off while driving. Therefore after the first 1600 km (1000 miles) check to see that the wheel nuts are tight. Use only a Holden wheel nut wrench and tighten the nuts firmly by hand. Do not use a hammer or other tool to tighten the nuts. Other tools or additional leverage could damage the wheel nuts or the hub bolts.

Lowering your vehicle



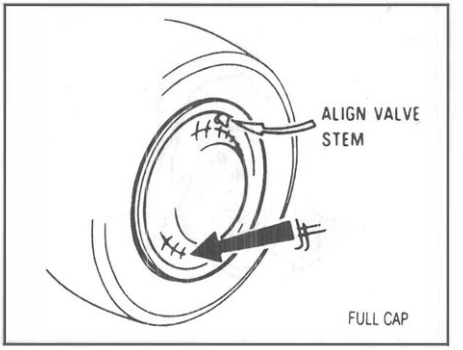
6. **Lower the vehicle completely and tighten the wheel nuts.**

Turn the jack handle ***counterclockwise*** to lower the vehicle.

Use only the wheel nut wrench to tighten the nuts. Do not use your foot on the wrench or a pipe as an extension to the wrench. Make sure the wrench is securely engaged over the nut. Tighten each nut a little at a time in the order shown. Repeat the process until all the nuts are tight.

As soon as possible after changing wheels, have a technician tighten the wheel nuts to the proper torque with a torque wrench.

Reinstalling wheel ornaments

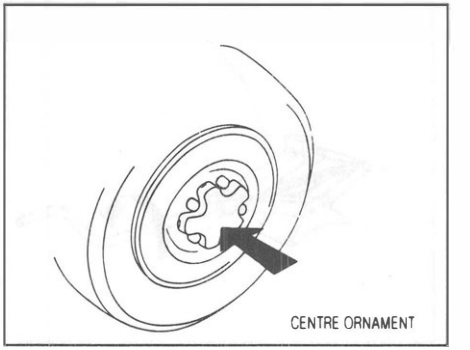


7. Reinstall the wheel cover, or wheel hub ornament.

Put the wheel cover or wheel hub ornament into position and then tap it firmly with the side or heel of your hand to snap it into place.

Check the air pressure of the replaced wheel and adjust to the specified pressure. If the pressure is lower than specified, drive slowly to the nearest service station and fill to the correct pressure.

Do not forget to reinstall the tyre inflation valve cap as dirt and moisture could get into the valve core and possibly cause air leakage. If the cap is missing, have a new one put on as soon as possible.



After changing wheels

Stow the punctured wheel, jack and tools securely in their places at the rear of the vehicle. Do not forget to turn off the hazard warning lights before re-commencing your journey.

Because the displaced wheel is punctured it is recommended that you have it repaired at the earliest possible time.

If your vehicle needs to be towed—

If towing is necessary, we recommend you have it done by your Holden dealer or a commercial tow truck service.

Proper equipment will help ensure that your vehicle is not damaged while being towed. Commercial operators are generally aware of the state and local laws pertaining to towing.

Your vehicle can be damaged if it is towed incorrectly. Although most operators know the correct procedure, it is possible to make a mistake. Rather than risk damage to your vehicle, why don't ***you*** make sure that the following few precautions are observed. If necessary, show this page to the tow truck driver.

TOWING PRECAUTIONS

- Use a safety chain system for all towing, and abide by the state and local laws.
- The wheels and axle on the ground must be in good condition if they are damaged, use a car ambulance.

Manual transaxle

- **Towing with rear wheels on ground:**
  Release the parking brake.
- **Towing with front wheels on road:**
  Vehicles with a manual transaxle can be towed with the front wheels on the road. However, special precautions must be taken. The ignition key has to be in the ACC position and the steering must be locked in the straight ahead position with a special steering wheel clamping tool designed by towing equipment manufacturers for use by tow truck operators. If the front wheels are damaged, use a car ambulance or a flat topped trailer.

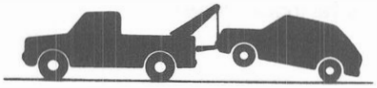
Automatic transaxle

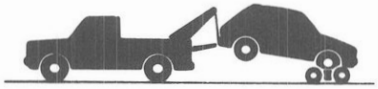
- **Towing with rear wheels on road:**
  Release the parking brake.
- **Towing with four wheels on road:**
  The vehicle can be towed from the front only. Release the parking brake and put the transaxle in "N". The ignition key must be in the 'ACC'' position, as the steering lock mechanism is not strong enough to hold the front wheels straight while towing. *Do not tow faster than 45 kmh and farther than 80 km.*

Before towing, check the transaxle fluid. If the level is lower than the "HOT" line on the dipstick, add fluid or use a car ambulance or a flat topped trailer.

Never tow from the rear with the front or, all four wheels on the road, as it may cause serious damage to the automatic transaxle. If your vehicle cannot be towed from the front, it must be placed on a car ambulance (see illustration overleaf under "If your vehicle needs to be towed") or loaded on a flat topped trailer.

If your vehicle needs to be towed—

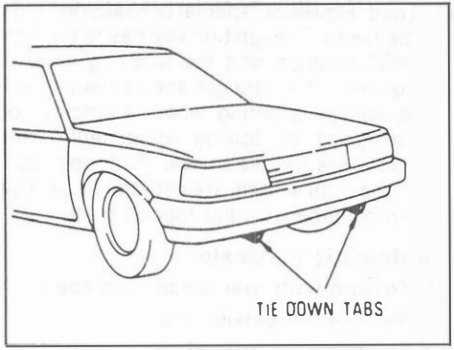




CAR AMBULANCE

AUTOMATIC TRANSAXLE—do not tow from rear with front wheels on road.

Emergency towing



For emergency towing, secure a cable to the tie-down tabs under the front of the vehicle.

Use it only when your vehicle must be towed on hard-surfaced roads. A driver must be in the vehicle to steer it and operate the brakes. *If the engine is not running, the power assist for the brakes and steering will not work so steering and braking will be much harder than usual.* Towing in this manner must not be done if the wheels, axles, drive train, steering or brakes are damaged.

Before towing, release the parking brake and put the transaxle in neutral. *The key must be in "ACC" (engine off) or "ON" (engine running).*

Corrosion prevention and appearance care—Section 5

Protecting your Holden from corrosion.

Diligent research and design, utilizing the most advanced technology available, has done its part to help prevent corrosion and has provided you with the finest quality in the construction of your car. Now, it is up to you. Proper care of your Holden can help ensure long-term corrosion prevention.

The most common causes of corrosion to your car are:

- The accumulation of road salt, dirt and moisture in hard-to-reach areas under the car.
- Chipping of paint, or undercoating caused by minor accidents or by stones and gravel.

Your care is especially important if you live in a particular area or operate your car under certain environmental conditions:

- *Road salt or dust control chemicals* will accelerate corrosion, as will the presence of salt in the air near the sea-coast or in areas of industrial pollution.
- *High relative humidity*, accelerates corrosion, especially when temperatures range just above the dew point (condensation temperature).
- *Wetness or dampness* to certain parts of your car for an extended period of time may cause corrosion even though other parts of the car may be dry.
- *High temperatures* will cause corrosion to those components of the car which are prevented from quick-drying due to lack of proper ventilation.

The above signifies the necessity to keep your car, particularly the underside, as clean as possible and to repair any damage to paint or protective coatings as soon as possible.

To help prevent corrosion on your Holden, follow these guidelines:

WASH YOUR CAR FREQUENTLY. It is of course, necessary to keep your car clean by regular washing. However, to prevent corrosion, the following points should be observed.

- If you drive on salted roads or if you live near the ocean, you should hose off the underside of the car at least twice a month to minimise corrosion.
- High pressure water or steam is effective for cleaning the car's underside and wheel housings. Pay particular attention to these areas as it is difficult to see all the mud and dirt. It will do more harm than good to simply wet the mud and debris without removing them. The lower edge of doors, rocker panels and frame members have drain holes which should not be allowed to clog with dirt as trapped water in these areas can cause rust.
- It is preferable that the underside of the car be washed thoroughly when winter is over.
- If your particular operating conditions are of a consistent adverse nature your Holden Dealer will be happy to advise you on additional corrosion prevention measures and undercoating.

After washing your car, make sure the brakes are fully dry before driving. (See "Washing and waxing your Holden" for more information.)

Check the condition of the paint. If you find any chips or scratches in the paint, touch them up immediately to prevent rust from starting. Apply the paint soon after the damage occurs or rust may set in. To do a good job, stir the paint well and use a small artist's brush. Make sure the area is clean and dry. Only apply the smallest possible amount of paint to the area where the paint is missing—do not paint on the surface around the scratch or chip. If the chip or scratches have gone through to the bare metal, have a recognised body shop make the repair.

continued overleaf

Check the interior of your car. Water and dirt can accumulate under the floor mats or trunk mats, and could cause corrosion. Occasionally check under the mats to make sure the area is dry. Be particularly careful when transporting chemicals, cleansers, fertilizers, salt, etc. and these should be transported in proper containers. If a spill or leak should occur, immediately clean and dry the area.

USE MUD FLAPS ON YOUR VEHICLE. If you drive on salted or gravel roads, mud flaps help protect your car. Therefore, if a mud flap is lost, a new one should be fitted as soon as possible.

DO NOT PARK YOUR CAR IN A DAMP, POORLY VENTILATED GARAGE. If you wash your car in the garage, or if you drive it in covered with water or snow, your garage may be so damp it will cause corrosion. Even if your garage is heated, a wet car can corrode in it if the ventilation is poor.

Washing and waxing your Holden

Wash your car in the shade when the body is not hot to touch. Use a mild carwash soap and rinse it well.

Dirt can cause small scratches in the paint and the chemicals in some dirt and air pollutants can cause deterioration of the paint and trim. Therefore, frequent washing is recommended. If you park or drive your Holden near the ocean or on salted roads, it is especially important to prevent corrosion.

Begin by rinsing all loose dirt off the car with a hose. If the underside has picked up mud or road salt, use a hard, direct stream from the hose to remove it. ***Wash* with a commercial car-wash product, which is available at your Holden dealer, or auto parts store. Follow the manufacturer's mixing instructions carefully. Do *not*** use a harsh household soap or detergent. A harsh soap has the ability to remove a previous protective wax coating from the paintwork, thus exposing it to the elements. When washing your car most in-ground dirt will respond to warm water. Dip your sponge or cloth into the wash bucket frequently and do not rub too hard. Let soapy water remove the dirt.

To clean alloy wheels use only a mild soap or a neutral detergent.

Rinse the car thoroughly. If any soap dries on the car, it may cause streaking. In hot weather, you may have to rinse each section of the car right after you wash it.

Dry the car with a soft moist chamois. The main purpose of drying is to remove excess water so that the car will air dry without water spots. Do not rub or press hard, you might scratch the paint. Never air dry a car that has been subjected to a detergent as this can cause water spot marks on the paintwork, which may not always be removeable.

If you detect any stone chips or scratches in the paint, touch them up immediately to protect the bare metal from corrosion. Touch-up paint is available at most Holden dealers.

Waxing is required to maintain the original beauty of your Holden's finish. It is recommended that a wax of good quality be used.

Always wash and dry the car before you begin waxing, even if you are using a combined cleaner and wax. Road tar may be removed with turpentine. Use warm water and car-wash soap for insects and tree sap. Commercial products are also available.

Do not use petrol, strong solvent or thinners.

Use a good quality polish and wax. If the finish has become extremely weathered, use

a car-cleaning polish, followed by a separate wax.

Carefully follow the manufacturer's instructions and precautions.

Be sure to polish and wax the chrome trim as well as the paint.

Cleaning and maintaining unpainted polypropylene bumpers.

To maintain the original beauty of the bumpers, observe the following precautions:

- Be careful not to spill brake fluid or battery electrolyte on the bumpers. Wash any spills with water immediately.
- The bumper face is soft. Remove dirt carefully and do not scrub with abrasive cleaners.
- Protect the bumpers from high temperatures. Always remove the bumpers if your vehicle is re-painted and placed in a high heat paint baking booth.

Wash and rinse as above. To remove stubborn dirt use a suitable household solvent cleaner (follow the manufacturer's instructions).

Note: If dirt is ingrained, agitate with soft bristle brush prior to rinsing and/or wiping.

After cleaning protection. Apply a suitable auto accessory proprietory protector containing anti-static agents to repel dirt and dust.

To restore bumpers to "near new" condition.

Clean bumper as described above, allow to dry, and then polish the surface with black shoe polish. Apply polish with a cloth and rub-in.

Cleaning the interior

The vinyl upholstery may be easily cleaned with a mild soap or detergent and water.

Vacuum first to remove loose dirt. Then with a sponge or cloth, apply a soap solution to the vinyl. Allow it to soak for a few minutes to loosen the dirt. Then rub briskly with a clean, damp cloth to remove the dirt and rinse off the soap. If all the dirt is not removed, repeat the operation. Commercial foaming-type vinyl cleaners are also available which work well. Follow the manufacturer's instructions. ***Do not use solvent, thinners or petrol or window cleaner on the interior.***

Your fabric upholstery may require light vacuuming from time to time to remove loose dirt, particularly in areas of heavy use.

To give your fabric longer life and keep it looking at its best, cleaning is sometimes necessary. Call a professional cleaner if you can, but if you decide to do it yourself, use a reputable brand of upholstery shampoo which is recommended for use on your particular fabric type, as shown in the table below:

MODEL	SL, SLX AND GS	SLE
FABRIC TYPE	POLYESTER PILE FABRIC	VELOUR

Speed is your best guarantee for successful stain removal. Nine out of ten spots will vanish if they are treated immediately.

Keep the necessary materials for stain removal handy in one place.

They are: a detergent suitable for your fabric, white vinegar, houshold dry cleaning fluids including methylated spirits, a small piece of sponge, clean absorbent cloths and paper towelling or white tissues.

continued overleaf

Procedure for removing stains (upholstery).

1. Firstly, remove the source of the stain using one of the followng methods:

(a) Blot up liquids by applying pressure with paper towels, tissues or dry absorbent cloths.

(b) Scoop up solids with a knife or spoon.

(c) Brush, burn or scorch marks from pile surface.

2. Take a small piece of sponge or clean cloth and apply the 1st treatment given on the Stain Removal Chart, using a small amount of cleansing agent at a time, with a blotting or dabbing motion, work inwards from the edge of the stain to prevent it spreading.

Do not over wet, excessive soaking may cause rings on the surface, spreading the stain further and may also damage the backing.

3. If the cleansing has removed the stain, commence the procedures 5-7, below.

4. Should the stain be apparent after applying the 1st treatment (further treatments are recommended on the Stain Removal Chart) remove excess moisture from the treated area by applying pressure with paper towels, tissues, or absorbent cloths and apply the next treatment given on the chart using the procedure outlined in 2 and 3 above. Continue with the recommended treatments, blotting up moisture between each new cleansing agent, until stain is removed.

5. Once the cleansing agent has removed the stain, blot up excess moisture from the treated area as described above.

6. Rinse by applying clear tepid water, using a small piece of sponge or clean cloth, again working inwards from the edge of the affected area. DO NOT RUB. This is particularly important when cleaning pile fabric (i.e. velvet/velour). Rubbing may produce permanent pile distortion.

7. Remove excess moisture as outlined in procedure 5.

8. After stain removal, it may be desirable to clean the whole surface with a good quality upholstery cleaner.

9. Gentle brushing with a soft brush may be necessary to restore the appearance of velvet/velour.

Stain removal chart fabric blend upholstery.

Type of Stain	Order of Treatment 1st	2nd	3rd	Type of stain	Order of Treatment 1st	2nd	3rd
Beer	1			Ink—Ballpoint	4	1	
Beetroot	1			Fountain Pen	9	1	6
Bleach	1			Lipstick	2	1	
Blood	10	6		Metal polish	2	1	
Burn or scorch mark	5			Mildew	1	5	
Butter	2	1		Milk	9	2	1
Candlewax	7	3		Mustard	1		
Chewing gum	7	2	1	Nail polish	8	2	
Chocolate	1	2		Oil	2	1	
Cocoa	2	10	1	Paint—Emulsion	2	10	1
Coffee (Black or White)	2	10	1	Paint—Oil base	3	2	1
Cooking Oils	2	1		Rust	2	1	11
Crayon	2	1		Salad dressing	2	1	
Cream	2	1		Shoe polish	2	1	
Egg	1			Softdrinks	9	1	5
Excrement	1			Tar	3	2	1
Fruit juice	9	1		Tea (Black or White)	2	10	1
Furniture polish	2	1		Urine	1		
Grass	4			Vomit	1		
Gravy	9	1		Wine—Red	12	9	6
Grease	2	1		White	1		
Ice-cream	1						

TREATMENT (cleansing agent)

1. Solution of one teaspoon of detergent in one litre of warm water. If the upholstery is a wool blend, use an approved wool detergent (e.g. "Softly").
2. Dry cleaning fluid, lighter fuel or mineral turpentine.

Caution: *Ensure no flame or lighted cigarette is near and use in a well ventilated area*

3. Mineral turpentine—effectiveness is increased if mixed with an equal quantity of dry cleaning fluid.

Caution: As 2 above.

4. Methylated spirits.

Caution: As 2 above.

5. Hydrogen peroxide (strength 20 vol). Dilute 10 to 1 with cold water.

Caution: *Do not use on a dark or patterned seat.*

6. Dye stripper. Dilute 50 to 1 with cold water.

Caution: as 5 above.

7. Chewing gum remover (freezing agent —ice cubes or pressure pack).
8. Nail polish remover.
9. Clean, warm (NOT HOT) water.
10. Cold water.
11. Weak solution of white vinegar or lemon juice with cold water.
12. Absorbent powder (e.g. baby powder or talc), sprinkle on spillage, leave overnight, and vacuum next day.

Use a good foam-type shampoo to clean the carpets.

Begin by vacuuming thoroughly to remove as much dirt as possible. Several types of foam cleaners are available: some are in aerosol cans and others are powders or liquids which you mix with water to produce a foam. To shampoo the carpets, use a sponge or brush to apply the ***foam***. Rub in overlapping circles. Do not apply water—the best results are obtained by keeping the carpet as dry as possible. Read the shampoo instructions and follow them closely.

The seat belts may be cleaned with mild soap and water or with carpet shampoo.

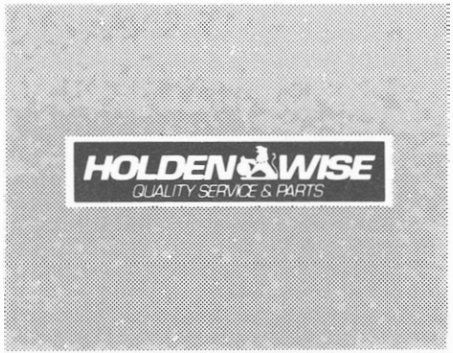
Use a cloth or sponge. As you are cleaning check the seat belts for excessive wear, fraying or cuts. ***Do not use dye or bleach on the belts—it will weaken them.***

When cleaning the windows inside, be careful not to scratch or damage heater wires on the rear window.

You may use any household window cleaner. But do be careful not to damage the heater wires.

If you have any questions about the cleaning of your Holden, your local Holden dealer will be pleased to answer them.

Maintenance facts



Regular maintenance is essential.

We urge you to protect your new car investment by having it serviced properly and regularly. For guidance in this regard, there is a maintenance schedule in part "B" of this Booklet. The booklet also contains service vouchers for presentation to your Holden Dealer when the car is due to be serviced and emission control information.

Regular maintenance will ensure:

- Engine emission is kept within legal limit
- Maximum fuel economy
- Long vehicle life
- Maximum driving enjoyment
- Safety
- Reliability
- Full warranty protection
- Compliance with safety regulations.

Your Holden has been designed for economical driving and economical maintenance. Many formerly required maintenance items are no longer required or are not required as often. Make sure that your car runs at peak efficiency and lasts a long time—follow the maintenance schedule in part "B" of this booklet. For most people, the odometer reading will indicate when service is needed. If, however, you drive infrequently, your car should be serviced at least every 6 months, as shown on the schedule. Under severe driving conditions, more frequent maintenance is required. (See "How to save fuel and make your car last longer", page 60).

Where to go for service

It is recommended that your car be taken to a Holden dealer for servicing because it will be worked on by technicians who receive regular in-house training on Holden vehicles; as well as the latest factory service bulletins and technical information. Also your Holden dealer has invested in many expensive Holden tools so that service and repair work can be carried out quickly and efficiently, which ultimately could mean a cost saving to you.

What about do-it-yourself maintenance?

Many of the maintenance items are easy to do yourself if you have a little mechanical ability and a few basic automotive tools. These items are referred to in Section 7. Doing some of your own car maintenance will save you money.

Note, however, that some maintenance tasks require special tools and skills. These are best performed by qualified Holden technicians. If you plan on doing only the simple maintenance items, your Holden dealer will be pleased to perform the remaining service tasks.

If you are a skilled do-it-yourself mechanic, the Holden factory service manuals are recommended. Please be aware that do-it-yourself maintenance can affect your warranty coverage. See part "B" of this Booklet for the details.

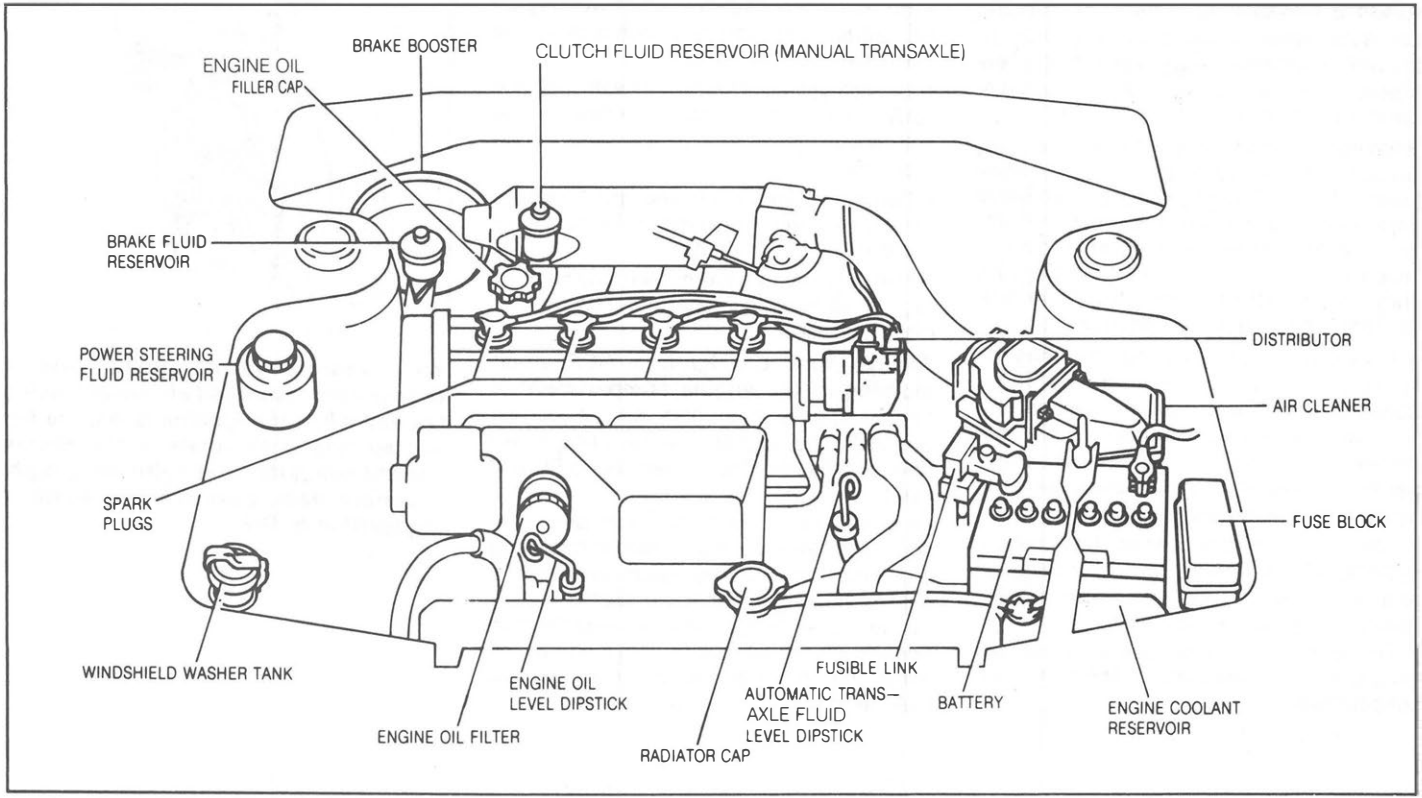
continued overleaf

Rubber hoses

Rubber hoses (for cooling and heater system, brake system and fuel system) should be inspected by a qualified technician in accordance with the Holden maintenance schedule.

They are particularly important maintenance items. *Have any deteriorated or damaged hoses replaced immediately*. Note that rubber hoses will deteriorate with age, resulting in swelled, chafed or cracked condition.

Engine compartment overview



Do-it-yourself service precautions

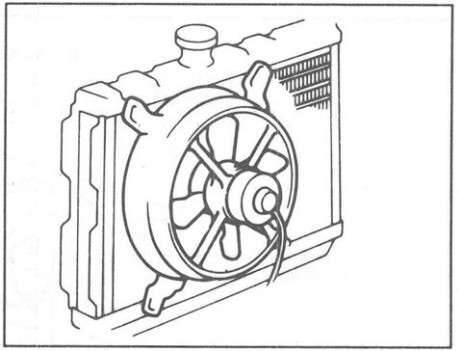
As with any machinery, extreme care should be taken when working on your car to prevent accidental injury. Here are a few precautions that you should be especially careful to observe:

- Ignition systems form a certain hazard to any person contacting live parts in the engine compartment. Persons wearing heart pacemakers are advised not to be in the vicinity of the engine while it is being worked on, or when the ignition is switched on; because they could be affected when certain voltage, current, and frequency conditions exist.
- Immediately after driving, the engine, radiator, exhaust manifold, catalytic converter and power train oils will be hot. Therefore, do not work on the vehicle until the engine is cold (see "Catalytic Converter" pages 1 and 2), unless you are checking the automatic transmission fluid level.
- When the engine is running, keep hands, clothing, and tools away from the moving fan and engine drive belts. (It is advisable to remove rings, watches and ties).
- Do not allow smoking, sparks, or flames around petrol or the battery. The fumes are inflammable.
- Be extremely cautious when working on the battery. It contains poisonous and corrosive sulphuric acid.
- Do not get under your car with just the body jack supporting it. Always use automotive jack stands or other solid supports.
- Remember the battery and ignition cables carry high currents or voltages. Do not cause accidental short circuits.
- Make sure you have not left any tools or rags in the engine compartment before you close the hood.

Always turn the ignition OFF when working in the engine compartment (if the vehicle is equipped with automatic transaxle, the engine must be idling when checking the fluid level—see pages 99 and 100).

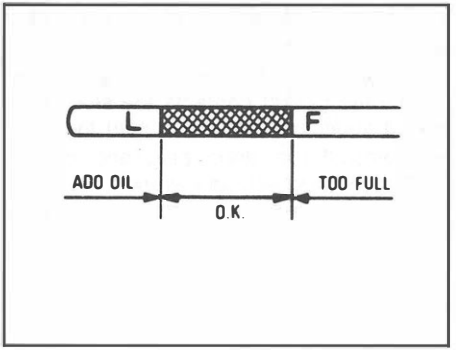
You should be aware that improper or incomplete servicing may result in operating problems. This section gives instructions only for those items that are relatively easy for an owner to perform. As explained in Section 6 there will still remain a number of items that must be done by a qualified mechanic with special tools.

Electric engine cooling fan



Your vehicle is equipped with a temperature controlled electrical cooling fan and when the ignition is on, the fan will automatically rotate if the engine coolant temperature is sufficiently high. Therefore, never work near the fan when the ignition is ON.

Checking the engine oil level



With the engine at operating temperature and turned off, check the oil level on the dipstick (see "Engine compartment overview" for dipstick location).

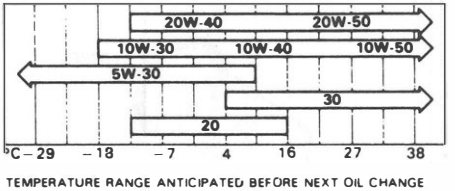
1. To get a true reading, the vehicle should be on a level surface. After turning off the engine, wait a few minutes for the oil to drain back into the bottom of the engine.

2. Pull out the dipstick, and wipe it clean with a rag.

3. Reinsert the dipstick—push it in as far as it will go or the reading will not be correct.

4. Pull the dipstick out and look at the oil level on the end. If it is between the "F" and "L" marks, it is all right. If the oil level is below the "L" mark (or even not showing on the dipstick), add oil up to the "F" line immediately.

Recommended viscosity (SAE):



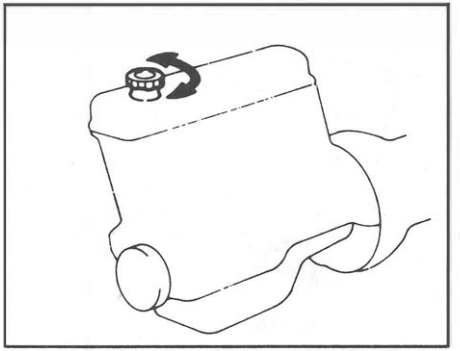
TEMPERATURE RANGE ANTICIPATED BEFORE NEXT OIL CHANGE

Oil grade and viscosity recommendations are given above.

Recommended grade (API):

SF, SG or better.

Changing the engine oil and filter



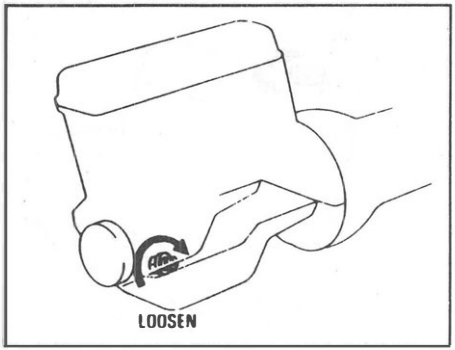
1. Warm up the engine for a few minutes and then turn it off. Remove the oil filler cap.

a. Park the vehicle on a level surface. Warm up the engine until the needle on the temperature gauge is at least above the bottom mark. (Warm oil will drain faster and more thoroughly). Turn off the engine.

b. Remove the oil filler cap. This allows air to enter the engine as the oil drains.

continued overleaf

Changing the engine oil and filter—*continued*

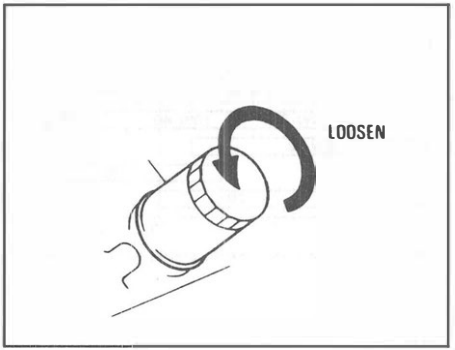


2. Remove the drain plug and allow the oil to drain fully.

a. Place a drain pan under the drain plug.

b. Using a wrench, remove the drain plug.

The oil may be hot—be careful not to burn yourself. Allow the oil to drain fully.



3. Remove the old oil filter located on the side of the cylinder block that is facing the front of the vehicle and install a new one hand tight. Reinstall the drain plug.

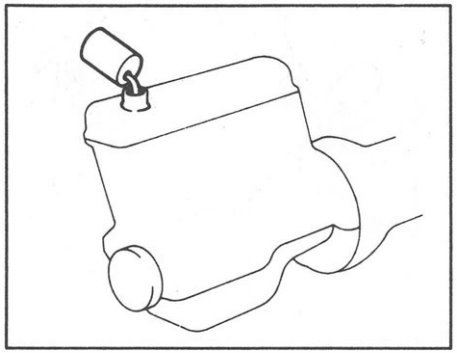
a. Using an oil filter wrench (any of several common types will work), loosen the oil filter. It turns counterclockwise. Once loose, you may unscrew it the rest of the way by hand. When removing it, hold up the end so that oil does not spill out.

b. With a clean cloth, wipe off the mounting surface on the engine so that the new filter will seat well. ***Make sure that the old gasket has not stuck to the mounting surface.*** If it has, remove it before installing the new filter.

c. Smear a little engine oil on the rubber gasket of the new oil filter.

d. Screw the new filter into place and tighten it until the gasket contacts the seat. Then give it additional 3/4 turn to seat the filter.

e. Reinstall the drain plug and gasket. Tighten the plug with your wrench, but do not force it and strip the threads.



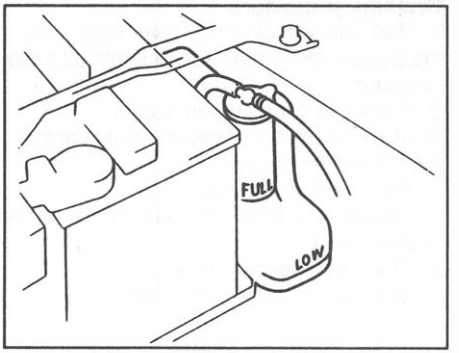
4. Add oil and install the filler cap. Start the engine and check for leaks at the filter or drain plug.

a. After adding the oil, make sure that the filler cap is installed hand-tight. You should double-check the oil level on the dipstick. Engine oil additives are neither needed nor recommended.

b. With the engine running, look carefully for any small leaks from around the oil filter or drain plug. Any leak indicates a faulty installation.

c. Turn the engine off and wait a few minutes. Check the oil level again and add oil if necessary.

Checking the engine coolant level



To check the engine coolant level, inspect the see-through coolant reservoir tank. The coolant level is satisfactory if it is between the "FULL" and "LOW" lines on the tank. The radiator cap should also be removed from time to time when the engine is cold to inspect the coolant level.

NOTICE:

The level of coolant in the see-through reservoir tank does not always indicate the correct content of the system. If the engine is overheating or there has been a sudden loss of coolant, remove the radiator cap once the engine has cooled down and check the coolant level. The radiator must always be full to the top of the filler neck. Refer to "If your car overheats" page 67 for further information.

The coolant level in the reservoir tank will vary with engine temperature. However, if the level is on or below the "LOW" line, add coolant. Bring the level to the "FULL" line.

Always use the same type of coolant as already in the cooling system. For information on coolant, see also "Changing the engine coolant" page 88.

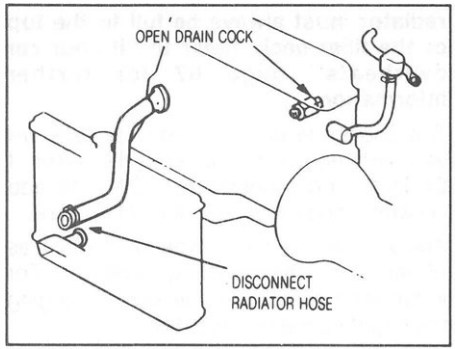
If the coolant level drops within a short time after replenishing, there may be a leak in the system. Visually check the radiator, hoses, radiator cap, drain cock, and water pump.

If no leak can be found, have the cooling system pressure tested at your Holden Dealer.

CAUTION:

To prevent scalding yourself, do not remove the radiator cap when the engine is hot.

Changing the engine coolant

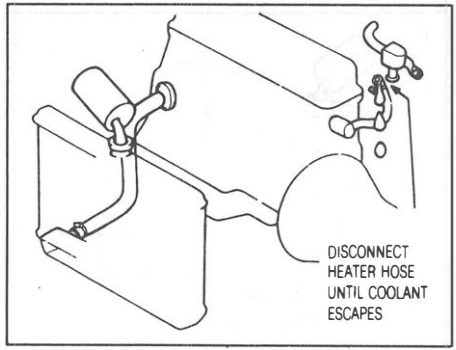


Drain the cooling system and flush it out with water once every 20,000 km or 12 months.

To ensure the cooling system does not contain an air lock which could damage the engine after it has been refilled with coolant, it is essential that the following draining, flushing and refilling procedure be adhered to carefully. Should you feel that the procedure is too difficult for you to do, your Holden Dealer will be pleased to do it for you.

Draining procedure

1. Park the vehicle on a level spot, where the coolant can drain into a suitable disposal container.
2. Ensure that the engine is cool.
3. Move heater temperature control lever to the full heat position.
4. Remove radiator cap.
5. Disconnect lower radiator hose at the radiator end.
6. Open engine drain plug.
7. Allow coolant to drain completely.



Flushing procedure

8. Insert mains pressure water supply hose into radiator through the filler neck.
9. Flush radiator until clear water flows from the lower radiator outlet.
10. Close off water supply.
11. Reconnect lower radiator hose and securely tighten hose clamp. Ensure hose is fully engaged onto lower radiator outlet and that "white" stripe on hose is to the top.
12. Open water supply and continue flushing until clear water runs from engine drain cock.
13. Close water supply and securely tighten engine drain cock.

Refilling procedure

14. Disconnect heater hose at heater tap neck and support open end at a level above opposite connected end.
15. Ensure the heater temperature control lever is fully to the right.
16. Add one can of Holden Corrosion Inhibitor (part number 08812 00025-A) or the correct amount of antifreeze to radiator.

NOTICE:

The use of Holden Corrosion Inhibitor (part number 08812 00025-A) is essential when replacing the coolant in Holden vehicles. The chemical composition of the inhibitor is the product of extensive research and development by Holden engineers. It has been designed specifically to maximise corrosion prevention of the engine cooling system. Therefore, it must always be added when renewing engine coolant and never mixed with any other additive or antifreeze. See "Engine coolant conditioner selection" this page and "Winter driving tips" page 63 for further information.

17. Add clean demineralised or distilled water to the radiator, until water escapes from the heater hose.
18. Reconnect heater hose and securely tighten clamp. Ensure hose is engaged fully onto heater tap neck.
19. Refill radiator to top of filler neck and ensure the coolant reservoir is showing full.

NOTICE:

If you spill some of the coolant, be sure to wash it off with water to prevent it from damaging parts or paint.

Add only clean demineralised or distilled water together with corrosion inhibitor or antifreeze to fill the radiator.

Check procedure

Start the engine and let it idle for approximately 6 minutes. Whilst idling, add clean water to the radiator to maintain full water level condition. Turn off engine and reinstall radiator cap.

Check the cooling system for water leaks.

Road test the vehicle to confirm that normal operating temperature is not exceeded.

Stop engine and, taking care not to touch anything hot in the engine compartment, check again for water leaks.

Engine coolant conditioner selection

Your coolant must contain either corrosion inhibitor or ethylene-glycol based antifreeze containing a corrosion inhibitor.

Corrosion inhibitor

The use of Holden Corrrosion Inhibitor (part number 08812 00025-A) is essential when replacing the coolant in Holden vehicles. The Holden inhibitor's chemical compositon is the product of extensive research and development, and has been designed specifically to maximise corrosion prevention of the engine cooling system when replaced in correct proportions in accordance with the vehicle maintenance schedule. When replacing coolant, it is essential that all existing coolant be thoroughly flushed from the system (includes engine, radiator, heater and hoses) and Holden Corrosion Inhibitor added together with clean demineralised or distilled water. See "Changing the engine coolant" page 88. Holden Corrosion Inhibitor must be used to ensure maximum corrosion protection.

continued overleaf

Antifreeze:
If antifreeze type coolant is required, all coolant must be drained, and the system thoroughly flushed to remove all corrosion inhibitor. (See under "Corrosion inhibitor" page 89, "Changing the engine coolant" page 88 and "Winter driving tips" page 64.) A good quality ethylene-glycol based antifreeze containing corrosion inhibitor, compatible with aluminium alloy and other system component materials, should then be added, together with clean demineralised or distilled water in proportions according to the antifreeze manufacturer's specifications.

The coolant containing antifreeze can remain in the system until the antifreeze manufacturer's recommended change interval has been reached.

The antifreeze coolant must then be flushed from the system and Holden Corrosion Inhibitor added, or, if sub-zero ambient driving temperatures are anticipated, antifreeze added, together with demineralised or distilled water.

NOTICE:

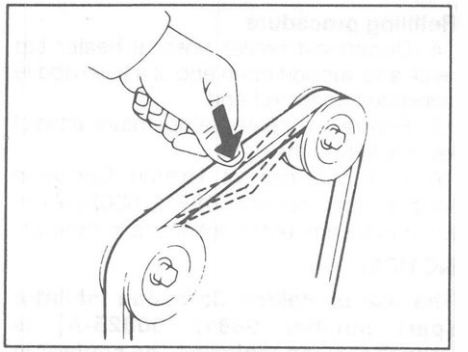
To prevent possible harm to the engine, the mixing of the Holden product with any other additive or antifreeze must not occur.

Use only clean demineralised or distilled water to fill the radiator.

Do not use alcohol type antifreeze or plain water alone.

Whenever antifreeze or inhibitor is replaced, the system must be thoroughly flushed as described in "Flushing procedure" page 88.

Checking the engine drive belts



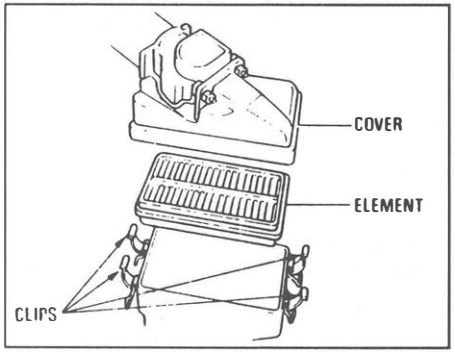
Visually inspect the condition of the belts. Check their tension by applying thumb pressure midway between the pulleys.

a. With the engine turned off, check the belts for cracks, fraying, excessive wear or oil stains. Have belts in poor condition immediately replaced by your Holden dealer.

b. With your thumb, press hard on each belt midway between the pulleys. Each belt should deflect no more than the amount specified in Section 9. If a belt is loose, have it adjusted by your Holden dealer.

When the engine is hot, be careful not to touch the radiator or engine.

Checking and replacing the air cleaning element



To inspect the element, release the clips, remove the cover and take out the element.

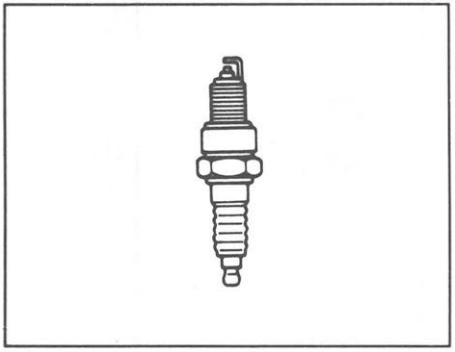
Pull the wire tab to release each clip.

Inspect the lower surface of the element. If it is dirty, it should be replaced. If it is just moderately dusty, it may be cleaned by blowing compressed air from the *upper* surface. Do *not* wash or oil the element.

When installing an element, be sure to remove any dust from where the element seats and put the element properly in place.

Do not drive with the air cleaner removed, or excessive engine wear could result. Also backfiring could cause a fire in the engine compartment.

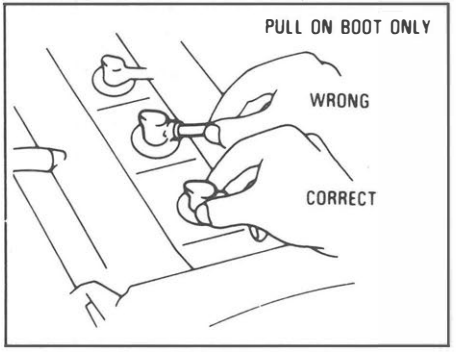
Replacing spark plugs



Always use the recommended spark plugs or equivalent when replacing. The use of the other plugs will cause engine damage or loss of performance.

RECOMMENDED SPARK PLUGS

Nippondenso	Q16 R-U11
NGK	BCP R5EY R11

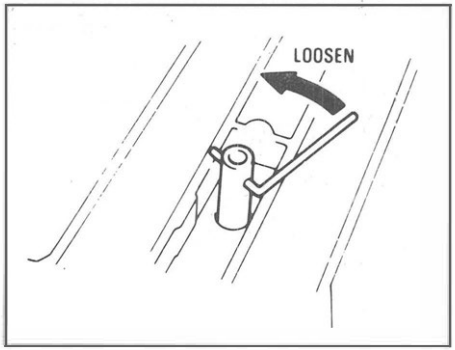


1. Unfasten the spark plug cables by pulling on the boot, not on the cable itself.

a. Note the order of the spark plug cables. If you are not positive that you can reconnect them correctly, mark each cable with a number on a piece of tape before disconnecting it.

b. Unfasten the connector by pulling straight up. Pulling on the cables may break the carbon conductor inside. ***The boots may be hot, so be careful.***

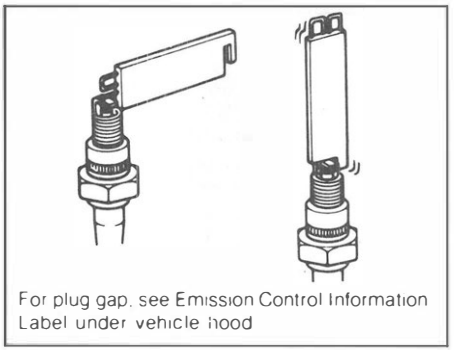
continued overleaf



2. Unscrew and remove the old spark plugs with their metal gaskets.

a. Keep the plugs in order as you remove them. ***The spark plugs may be hot, so be careful.*** One clue to judging the plug condition is the deposits. If the plugs have anything other than light grey deposits on the centre electrode insulation, that may indicate the engine needs adjustments or repairs. Save them and show them to your Holden dealer.

b. Make sure that no metal gaskets were accidentally left in place. A double gasket could cause leakage. ***Do not allow dirt or anything else to fall through the spark plug holes.***



For plug gap, see Emission Control Information Label under vehicle hood

3. Set the gap on the new plugs to the correct clearance, and install them. Reconnect the spark plug cables in correct order.

a. Check the gap by passing the feeler gauge between the electrodes on the spark plug. If the gap is correct, you will feel a slight drag. If necessary, bend the outer electrode to obtain the right clearance. ***Do not pry against the centre electrode.***

b. First screw in the plugs by hand. If necessary, a spark plug wrench may be used for an extension. If a plug does not screw in smoothly, remove it and try again to ensure the correct engagement of the threads on the spark plug with the threads in the hole. This prevents the threads from stripping in the next step. Tighten with a spark plug wrench, being careful not to strip the threads. Do not overtighten them.

c. Make sure the cables are installed in the correct order. The connector fastens on by pushing it squarely over the end of the plug.

CHECKING BATTERY CONDITION AND FLUID LEVEL

BATTERY PRECAUTIONS

The battery produces an inflammable and explosive hydrogen gas. Therefore,

- Do not allow tools to cause sparks by letting them ground (earth) the positive terminal.
- Do not smoke or light a match near a battery.
- Always charge your battery in an unconfined area. Do not charge or use the battery for other purposes in a garage or closed room where there is not sufficient ventilation.

The electrolyte contains poisonous and corrosive sulphuric acid.

- Avoid contact with eyes, skin or clothes.
- Never swallow electrolyte.

- Wear protective safety glasses when working near a battery
- Keep children away from batteries.

EMERGENCY MEASURES

- If electrolyte gets in your eyes, ***flush your eyes with clean water for at least 5 minutes and get immediate medical attention.*** If possible, continue to apply water with a sponge or cloth while en-route to the medical treatment.

- If electrolyte gets on your skin, ***thoroughly wash the contacted area. If you feel a pain or burn, get medical attention immediately.***
- If electrolyte gets on your clothes, there is a possibility of it soaking through to your skin so ***immediately take off the exposed clothing and follow the procedure above, if necessary.***
- ***If electrolyte is swallowed, drink a large quantity of water or milk. Follow with milk of magnesia, beaten raw egg or vegetable oil. Then go immediately for emergency help.***

BATTERY RECHARGING PRECAUTIONS

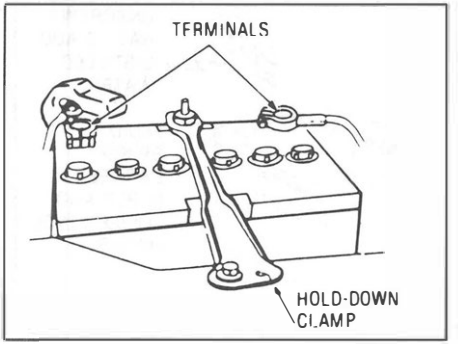
During recharging, the battery is producing hydrogen gas.

Therefore, before recharging:

- Remove the battery from the car and remove the vent caps if performing a quick charge (6 A or above but max. 15 A). Removing the filler/vent caps is not necessary when performing a slow charge (under 5 A).
- Be sure the power switch on the recharger is OFF when connecting the charger cables to the battery and when disconnecting them.
- If recharging with the battery installed to the car, be sure to disconnect the ground cable (earth).

BATTERY HANDLING PRECAUTIONS

- Before performing maintenance on your battery or recharging it, turn off all accessories, stop the engine and remove the vent caps.
- When removing and reinstalling the battery, the ground (earth) cable should be removed first and installed last.
- If recharging with the battery installed on the vehicle, be sure to disconnect the ground (earth) cable.



1. Check the battery for corroded or loose connections, cracks, or loose hold-down clamps.

The fumes generated by the battery can be explosive. Therefore, do not allow open flames, sparks, or smoking nearby.

a. If the battery is corroded, wash it off with a solution of warm water and baking soda. Coat the outside of the terminals with grease to prevent further corrosion.

b. If the connections are loose, tighten the clamp bolts—but do not overtighten.

c. Tighten the hold-down clamp only enough to keep the battery firmly in place. Overtightening may damage the battery case.

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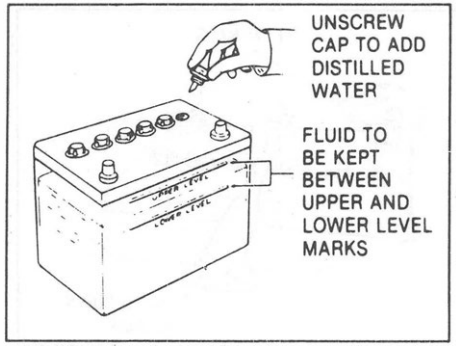


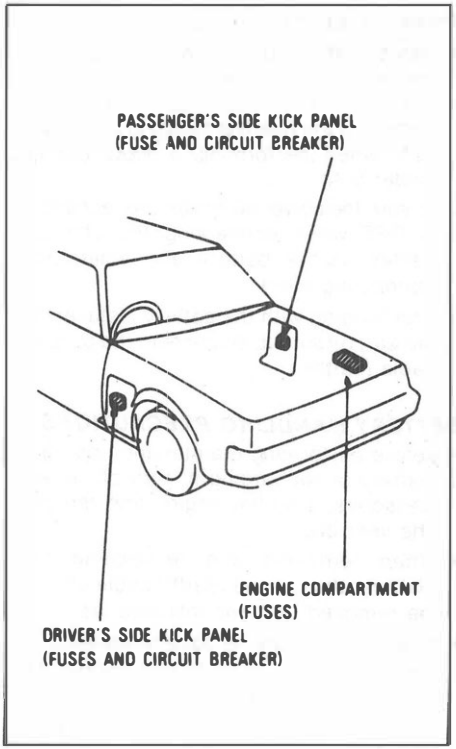
2. Check the electrolyte level as shown above. If the level is low, add distilled water.

a. When checking the electrolyte level, look at all six cells, not just one or two.

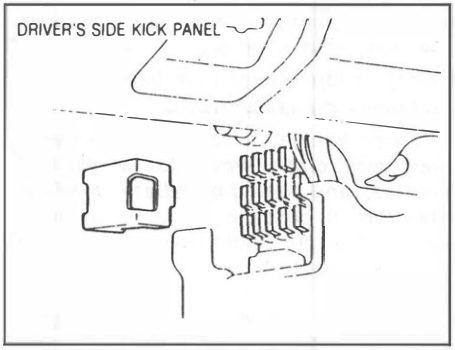
b. Use only distilled water to replenish the battery. ***Do not overfill*** the electrolyte may squirt out of the battery during periods of heavy charging, causing corrosion or damage.

c. After replenishing, be sure to securely retighten the filler/vent caps.

Fuse and circuit breaker locations


PASSENGER'S SIDE KICK PANEL (FUSE AND CIRCUIT BREAKER)
ENGINE COMPARTMENT (FUSES)
DRIVER'S SIDE KICK PANEL (FUSES AND CIRCUIT BREAKER)

Checking and replacing fuses

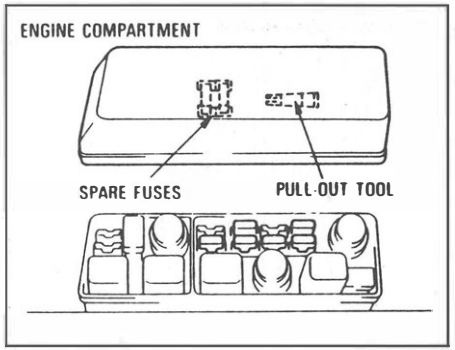


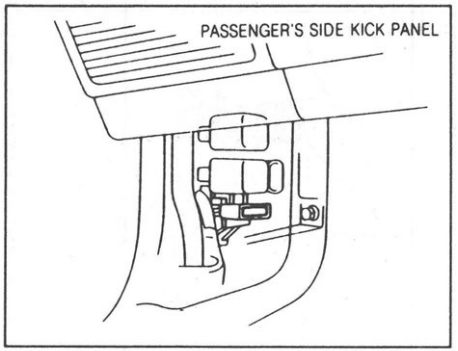
1. Turn the ignition switch off and open the fuse box lid.

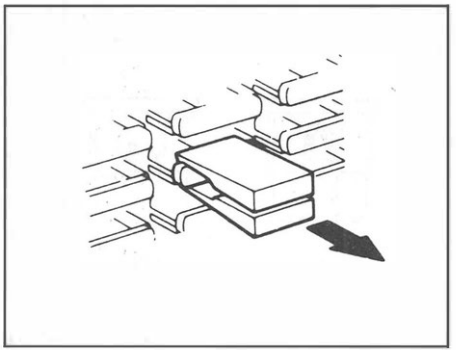
If any light or electrical component does not work, your vehicle may have a blown fuse.

Determine which fuse may be causing the problem. The lid of the fuse box shows the name of the circuit for each fuse.

Checking and replacing fuses—continued







2. Be sure the inoperative component is off. Pull a suspected fuse straight out with the pull-out tool and check it. If it has blown, push a new fuse in the clips.

a. Look carefully at the fuse. If the thin wire is broken, the fuse has blown. If you are not sure or if it is too dark to see, try replacing the suspected fuse with one you know is good.

b. Install only a fuse with an amperage rating designated on the fuse box lid. ***Never use a fuse with a higher amperage rating or some other object in place of a fuse.***

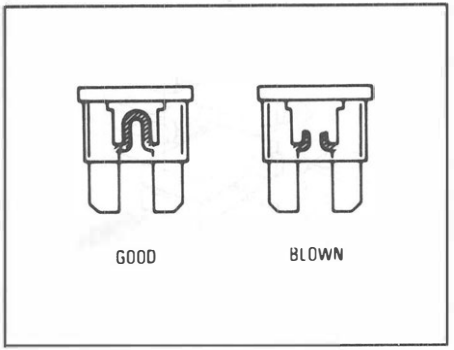
c. If the new fuse immediately blows out, there is a problem with the electrical system. Have your Holden Dealer correct it as soon as possible.

If you do not have a spare fuse, in an emergency you can pull out the "CIG", "RADIO", "DOME", "A/C" or "HEATER" fuse, which may be dispensable for normal driving, and use it if its amperage rating is the same.

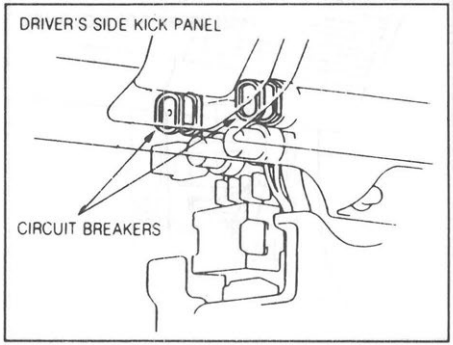
If you cannot use one of the same amperage, use one with a lower than, but as close as possible to, the same rating. If the amperage is lower than that specified, the fuse might blow out again but this does not indicate anything wrong. Be sure to get a correct fuse as soon as possible and return the substitute to its original clips.

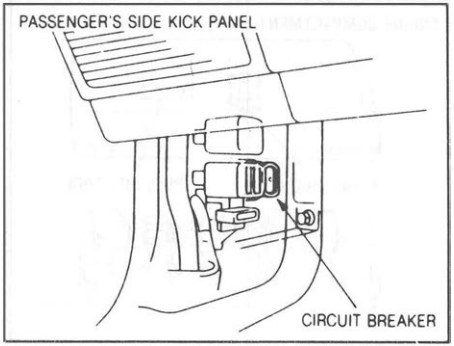
NOTE: It is a good idea to purchase a set of spare fuses and keep them in your vehicle for emergencies.

Checking and replacing fuses—continued



Checking the circuit breakers



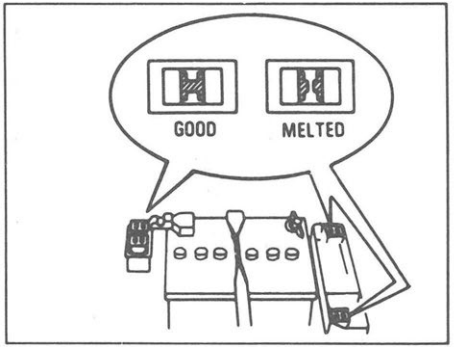


In event the defogger or heater blower motor does not operate, check its circuit breaker (C.B.).

a. First turn the ignition switch off. Lightly insert a piece of wire (not a stranded wire), into the hole in the circuit breaker for the defogger or heater blower motor. This should turn on the circuit breaker and the component will then operate. This may be done without removing the circuit breaker.

b. If the circuit breaker immediately goes off again, or the component does not operate turn off the component switch and have the electrical system checked by your Holden dealer as soon as possible.

Checking the fusible links



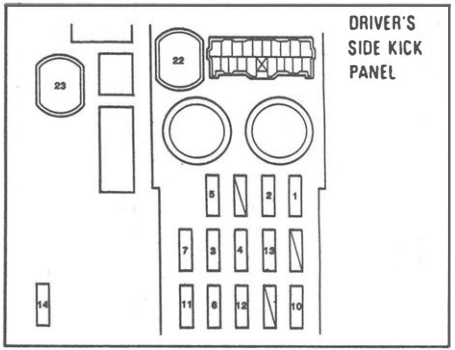
If the headlights or other electrical components do not work and the fuses are all right, check the fusible links. If any have melted, they must be replaced.

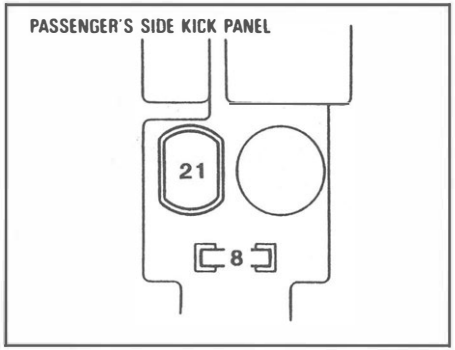
Always use a genuine Holden fusible link for replacement. Never install a wire—even for a temporary fix. It may cause extensive damage and possibly a fire.

If there is an overload in the circuits from the battery, the fusible links are designed to melt before the entire wiring harness is damaged.

Before replacing the fusible links, the cause of electrical overload should always be determined and repaired by your Holden dealer.

Fuses and circuit breakers

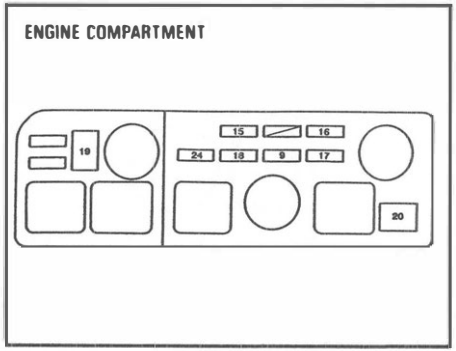




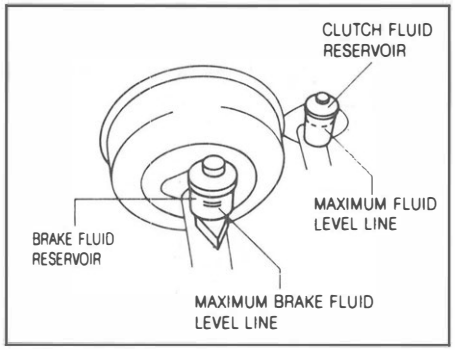
1. **TAIL 15A:** Tail, front parking, licence plate and instrument panel lights.
2. **STOP 15A:** Stop lights
3. **RADIO 7.5A:** Radio, cassette tape player and power rear view mirrors.
4. **TURN 7.5A:** Turn signal lights.
5. **GAUGES 7.5A:** Gauges and meters, warning lights (except discharge and open door warning lights), back up lights, automatic transaxle, overdrive system and rear window defogger.
6. **WIPER 20A:** Windshield wipers and washers, rear window wiper and washer.
7. **CIG 15A:** Cigarette lighter, digital clock display, power antenna.
8. **A/C 10A:** Air conditioner.
9. **HAZ-HORN 15A:** Emergency flashers, horns.
10. **IGN 7.5A:** Charging system discharge warning light, emission control system, electronic fuel injection system.
11. **ENGINE 10A:** Charging system.
12. Not used.
13. **DEF-I/UP 10A:** Emission control system.
14. **DRIVING LAMP 15A.**
15. **DOME 7.5A:** Interior light, personal lights, trunk room light, ignition switch light, clock, open door warning light and power antenna.

continued overleaf

Checking brake and clutch fluid



16. **HEAD (RH) 15A:** Right-hand headlight.
17. **HEAD (LH) 15A:** Left-hand headlight.
18. **EFI 15A:** Electronic fuel injection system.
19. **FUSIBLE LINK 30A:** Air conditioner fan.
20. **FUSIBLE LINK 30A:** Cooling fan.
21. **CIRCUIT BREAKER 30A:** Heater.
22. **CIRCUIT BREAKER 30A:** Rear window defogger.
23. **CIRCUIT BREAKER 30A:** Power door lock system. Power windows.
24. **CHARGE 7.5A:** Charging system, discharge warning light.

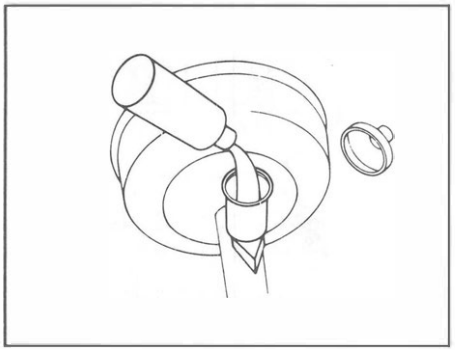


To check the fluid levels, simply look at the see-through reservoirs. The level should be within 10 mm of the maximum fluid level line.

It is a good habit to check these fluid reservoirs every time you check the engine oil level.

It is normal for the brake fluid level to go down slightly as the front brake pads wear. So be sure to keep the reservoirs filled.

If any reservoir needs frequent refilling, it may indicate a serious mechanical problem.

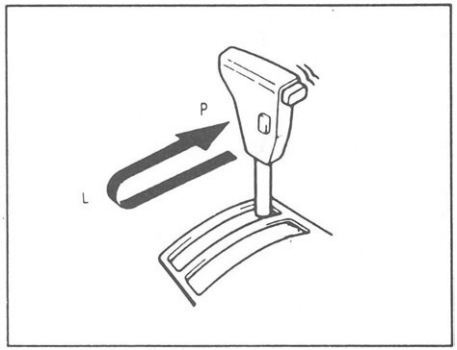


If the level is low, add FMVSS No. 116 DOT-3 SAEJ1703 or AS1960 Grade 1 brake fluid only, to the brake or clutch reservoir.

Use caution in filling the reservoirs because brake fluid can harm your eyes and damage painted surfaces.

Do not use brake fluid that has been opened for more than 6 months or that has had the cap left off. Brake fluid absorbes moisture from the air, and excess moisture can cause a dangerous loss of braking. Also, for this reason you should have the brake fluid drained and replaced periodically. (See the Maintenance Schedule in part "B" of this booklet). Remove and replace the reservoir covers by hand.

Checking automatic transmission (transaxle) fluid level



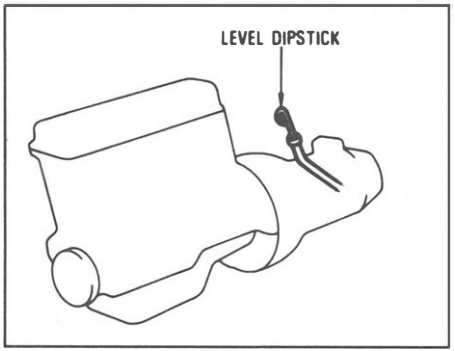
1. Check the fluid level only when the transaxle is hot (normal operating temperature). With the vehicle level, first set the parking brake and then start the engine. While the engine is idling, depress the brake pedal and shift into each range from "P" to "L" and return to "P".

If the vehicle has been driven over 16 km (24 km in frigid temperatures), the fluid temperature will be high enough (70°C-80°C) for the level to be checked.

When the vehicle has not been driven for over 5 hours and the transmission fluid temperature is between 20°C and 30°C, a cold fluid level check can be made.

However, checking a cold transaxle is to be used for your reference only and the transaxle must be checked again for correct level at normal operating temperature.

NOTE: If the vehicle has just been driven for a long time at high speed or in city traffic in hot weather, or if the vehicle has been pulling a trailer, the accurate fluid level cannot be obtained. Check the level after the fluid has cooled down (about 30 minutes).



2. With the engine still idling, check the fluid level and condition on the dipstick. If necessary, add Dexron II® automatic transmission fluid.

When the engine is running, keep hands and clothing away from the moving fan and engine drive belts.

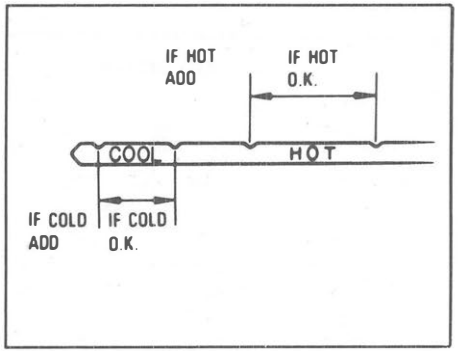
a. Pull out the dipstick and wipe it clean.

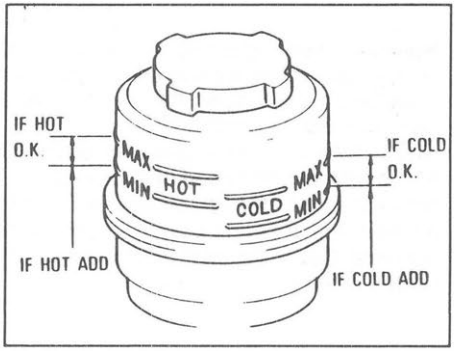
Be careful not to touch the hot exhaust manifold.

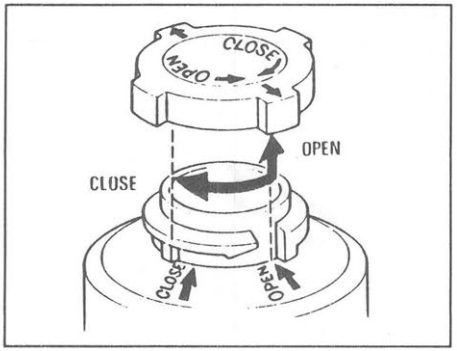
b. Reinsert the dipstick—push it in as far as it will go.

continued overleaf

Checking power steering fluid







c. Pull the dip-stick out and look at the fluid level. If the transaxle is cold, the level should be in the "COOL" range on the dipstick. Similarly, if it is hot, the fluid level should be in the "HOT" range. If the level is at the low side of either range, add Dexron II® automatic transmission fluid. (Fluid is added through the dipstick tube, using a funnel.)

Keep the fluid at the correct level. Overfilling may cause transaxle damage and low fluid may cause slipping.

d. While checking the fluid level, also check the condition. If the fluid is black or if it smells burnt, have it changed.

To check the fluid level, simply look at the see-through reservoir. If necessary, add DEXRON-II® automatic transmission fluid.

If the vehicle has been driven around 80 km/h for 20 minutes (a little more in frigid temperatures), the fluid is hot (60°C-80°C). You may also check the level when the fluid is cold (about room temperature, 10°C-30°C) if the engine has not been run for about five hours.

If the fluid is cold, the level should be in the "COLD" range. Similarly, if it is hot, the fluid level should be in the "HOT" range. If the level is at the low side of either range, add DEXRON-II® automatic transmission fluid, ***but do not overfill.***

To remove the filler cap, turn it counterclockwise and lift up. To reinstall it, turn it clockwise.

After replacing the filler cap, visually check the steering box case, vane pump and hose connections for leaks or damage.

Adding washer fluid

BOTTLE LOCATED AT REAR OF DRIVER'S SIDE
FRONT HEADLIGHT

If a screen washer does not operate, the screen washer bottle could be empty. Check the bottle and, if necessary, add washer fluid.

Tap water or clean rain water is a satisfactory washer fluid. However, if you drive during freezing conditions, the washer water might freeze. To ensure this does not occur, add a washer fluid that contains anti-freeze. ***(Do not use engine anti-freeze because it may damage the paintwork.)*** Always read and follow the instructions given on the windscreen washer fluid container. Normal household detergents are not suitable as they may damage the washer pump and rubber wiper blade elements.

Check the washer jets regularly for cleanliness and alignment.

Do not operate the windscreen wipers on a dry windscreen or scratching may result.

Windscreen wiper blades

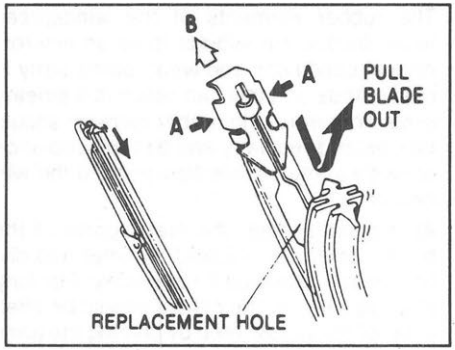
The rubber elements of the windscreen wiper blades are subject to harsh environmental conditions and wear, particularly in dusty areas and this can result in a smeary wipe. Therefore, the rubber element should be checked regularly and be replaced once or twice a year, preferably prior to the wet season.

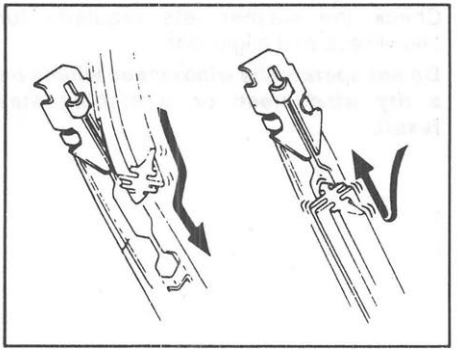
At the same time, the metal parts of the blade should be checked for wear and distortion and replaced if necessary. For long storage periods, the blades should be lifted clear of the windscreen by placing the arms in the "lock-back" position.

Windscreen and rubber element cleanliness

The windscreen and blade elements should be cleaned regularly using a suitable windscreen washer solvent. This removes contaminations and road scum thus reducing the tendency for blade shudder and ensures clear vision.

Replacing the wiper blades





When the wipers no longer clean adequately, the wiper blades may be worn or cracked requiring replacement.

a. Lift the wiper blade clear of the windscreen by placing the arms in the "lock" back position.

b. Push the bottom end of the wiper rubber inward until it is free of the metal backing strip retaining clip and you can see the replacement hole.

c. Pull the wiper blade out of the replacement hole.

Note: If metal backing strip needs replacing, squeeze retaining clip at points "A" and, whilst still squeezing, pull clip in direction of "B". The backing strip can then be removed.

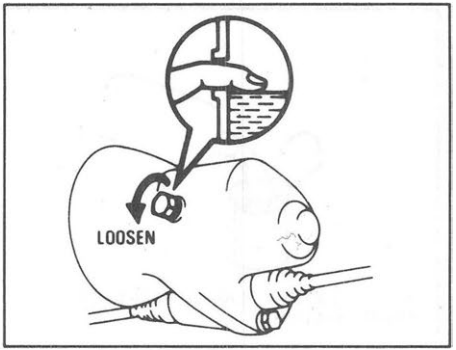
d. To install a new rubber, insert the end of the rubber into the replacement hole, and work the rubber along the slot in the blade backing strip.

e. Once all of the rubber is in the frame slot, pull it over the backing strip retaining clip and spread the rubber evenly along the strip.

Note: if a new backing strip is to be installed, reverse the procedure given for backing strip removal.

f. Fold the wiper arm back to the working position.

Checking manual transaxle oil



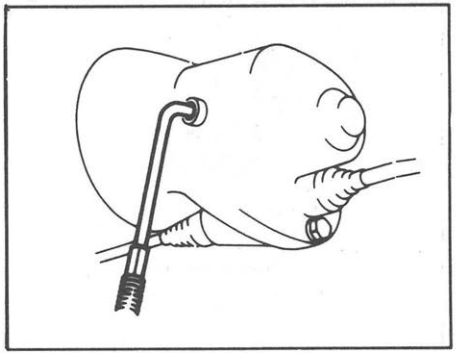
Remove the filler plug and feel inside the hole with your finger. The oil should come to the bottom edge of the hole. If the level is all right, reinstall the plug and tighten it.

Caution: This check must be carried out only when the gear oil is cold, never insert fingers after the car has been driven as the oil may be hot.

a. Make sure the car is level while making this check.

b. After installing the plug, visually check the transaxle case for leaks or damage.

Checking manual transaxle oil—*continued*



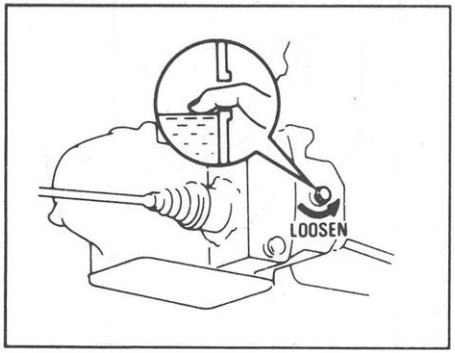
If the level is low, add DEXRON II® automatic transmission fluid until it begins to run out of the filler hole. Reinstall the plug securely.

a. Fill the lubricant filler with fluid.

b. Put the end of the tube into the filler hole and add fluid until it begins to run out.

c. Install and tighten the filler plug.

Checking differential fluid (automatic transaxle)

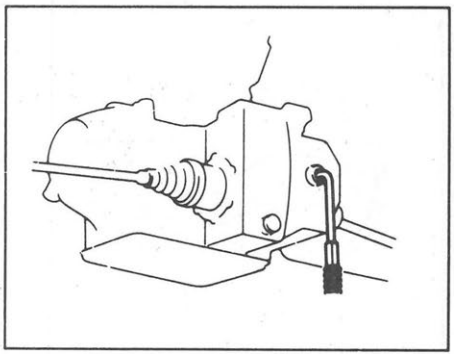


Remove the filler plug and feel inside the hole with your finger. If the fluid comes to the bottom edge of the hole, the level is correct. Reinstall the plug.

Caution: This check must be carried out only when the fluid is cold, never insert fingers after the car has been driven as the oil may be hot.

a. Make sure the vehicle is parked on a level surface.

b. After installing the plug, visually check the differential for leaks or damage.



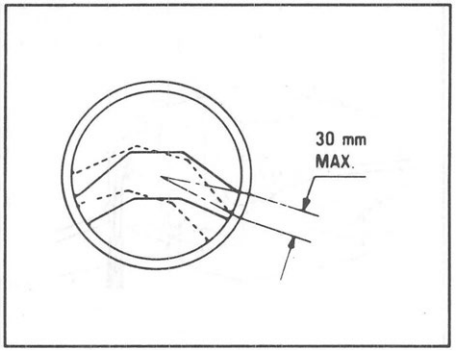
If the level is low, add DEXRON II® automatic transmission fluid until it begins to run out of the filler hole. Reinstall the plug.

a. Fill the lubricant filler with fluid.

b. Put the end of the tube into the filler hole and add fluid until it begins to run out.

c. Install and retighten the filler plug.

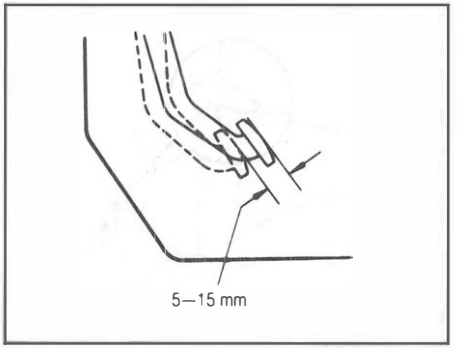
Checking steering wheel freeplay



With the vehicle stopped and the front wheels pointed straight ahead, rock the steering wheel gently back and forth. If the freeplay is more than specified, have it inspected by your Holden Dealer.

Use only a very light finger pressure to rock the wheel slowly.

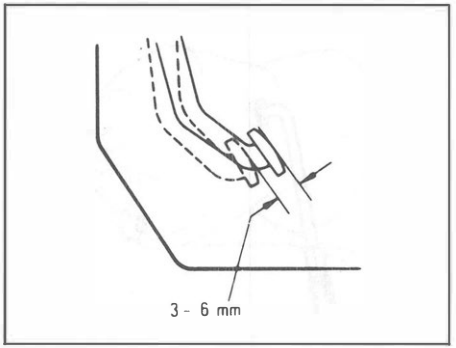
Checking clutch pedal freeplay



Press down lightly on the clutch pedal and measure the distance it moves freely before the clutch resistance is felt. The freeplay should be within the above limits.

If the freeplay is more or less, have your Holden dealer inspect the clutch.

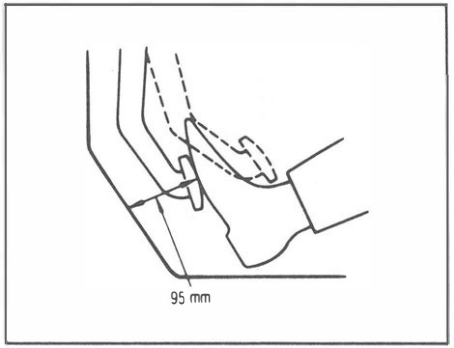
Checking brake pedal freeplay



With the engine stopped, first reduce the vacuum in the booster by depressing the brake pedal several times. Then lightly and slowly press down on the pedal with your fingers and measure the distance it moves before slight resistance is felt.

If the freeplay is more or less than specification, have your Holden dealer adjust the brakes.

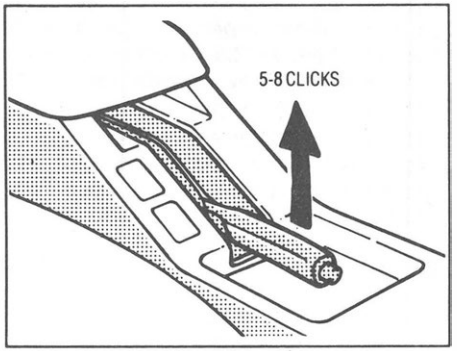
Checking brake pedal clearance



With the engine running, have someone press the brake pedal several times and then press hard on it. The distance from the carpet to the top surface of the pedal should not be less than specified.

If the clearance is less, have your Holden dealer adjust the brakes.

Checking parking brake adjustment



Count the number of clicks as you slowly pull on the parking brake as far as it will go. The adjustment is correct if you hear the number of clicks specified above.

If you count more or less clicks, have the parking brake adjusted by your Holden dealer.

Checking the brake booster and master cylinder

Sit down in the driver's seat and follow the instruction given below. If your brakes do not operate as described, have them checked at your Holden dealer.

1. ***With the engine stopped press the brake pedal once:*** the travel distance should not change.
2. ***With the brake fully depressed, start the engine:*** the pedal should move down a little when the engine starts.
3. ***Depress the brake, stop the engine, and hold the pedal in for about 30 seconds:*** the pedal should neither sink or rise.
4. ***Restart the engine, run it for about a minute and turn it off. Then firmly depress the brake several times:*** the pedal travel should decrease with each application.

Headlight units and driving lamp bulbs

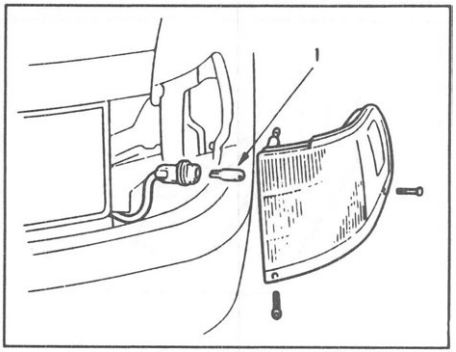
It is recommended that headlight units and driving lamp bulbs be replaced by your Holden Dealer as they may need realignment if disturbed.

Replacing other interior and exterior bulbs

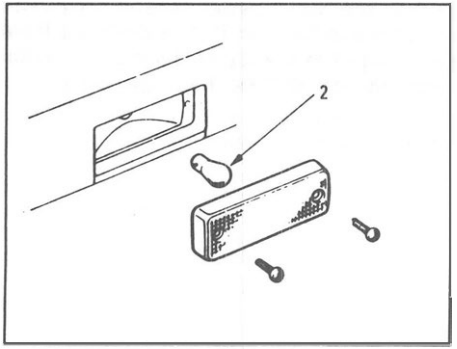
The illustrations show how to gain access to the bulbs. ***When replacing a bulb, make sure the light switch is off. Use only a bulb with the same wattage rating.*** The wattage ratings are given below.

The single end bulbs are removed by pressing in and turning counterclockwise. The double-end bulbs (*) or wedge base bulbs (**) pull straight out of the holder clips.

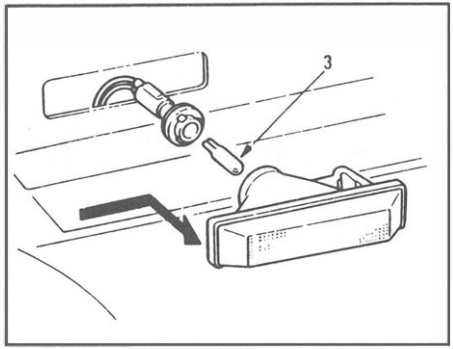
No.	Light Bulbs	Wattage
1	Parking lights**	5
2	Front turn signal lights	21
3	Side turn signal lights**	5
4	Rear turn signal lights	21
5	Stop and tail lights	21/5
6	Back-up light	21
7	Licence plate lights	5
8	Interior light*	10
9	Personal lights	8
10	Glovebox light**	1.4
11	Luggage compartment light	5
12	Trunk room light**	5
13	Trunk room light**	5
14	Centre stop light	21
15	Tail lights	21/5



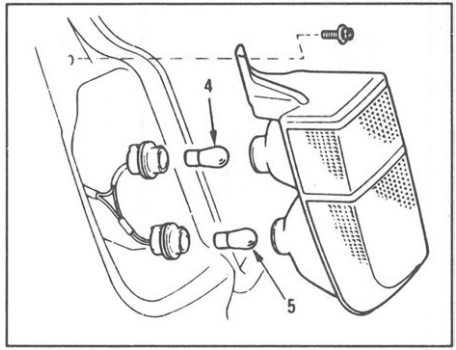
ALL MODELS: Parking Lights



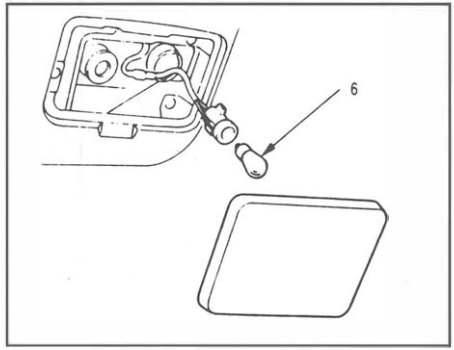
ALL MODELS: Front turn signal lights



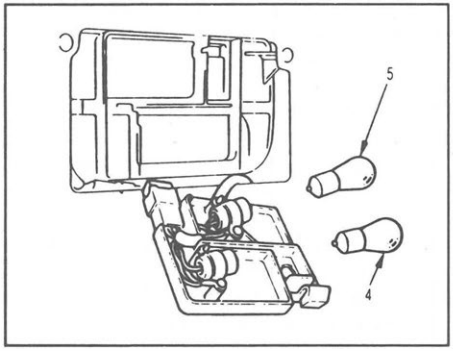
ALL MODELS: Side turn signal lights



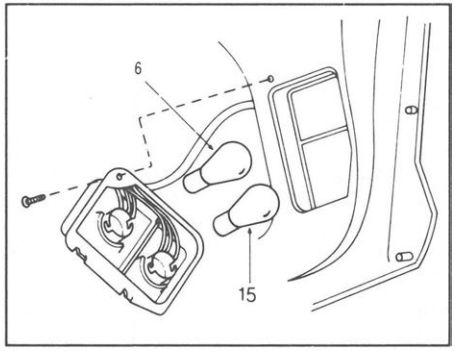
STATION WAGON: Rear turn signal and stop and tail lights



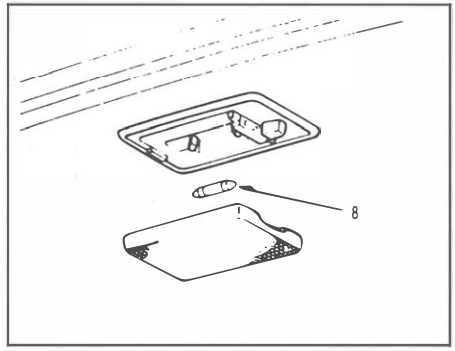
STATION WAGON: Back up light (in back door)



SEDAN: Rear turn signal and stop and tail lights (in trunk)

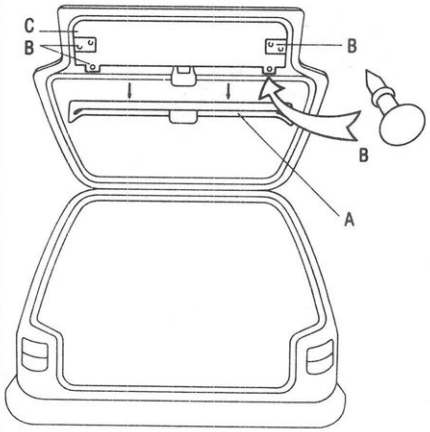


SEDAN: Back up and tail lights (trunk lid)

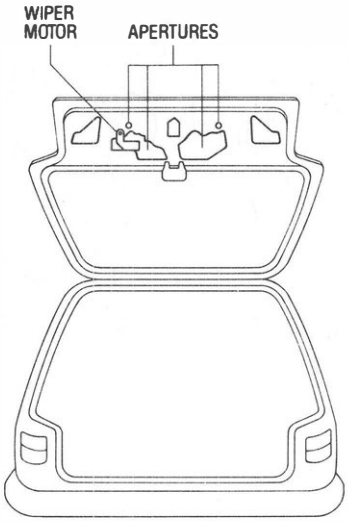


ALL MODELS: Interior light

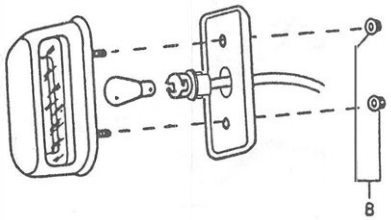
continued overleaf



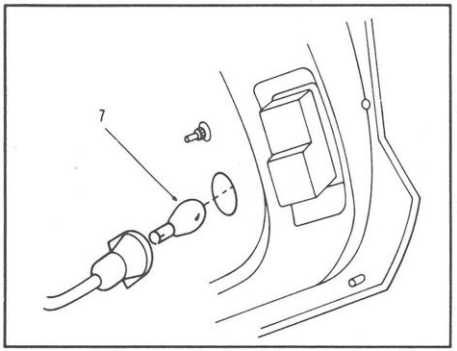
A. Pull off garnish.
B. Remove the six trim retaining pins
C. Pull off the two small and the large trim panels.



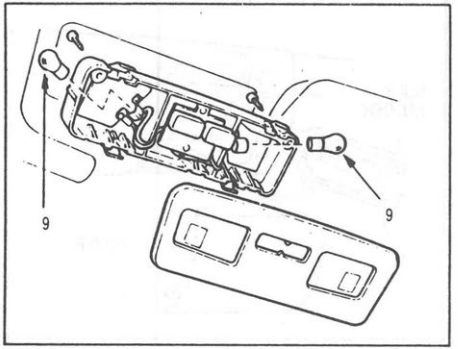
Depending on which bulb has failed, remove the two lamp assembly retaining nuts located behind the apertures in the rear door.



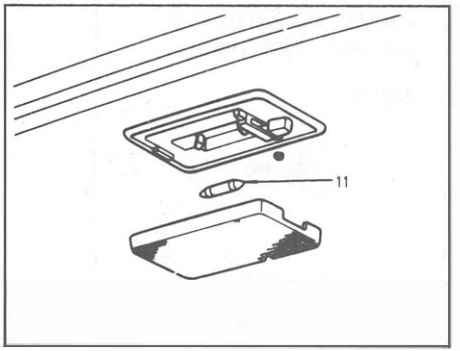
- Disconnect battery located under vehicle hood.
- Pull lamp assembly out of door just far enough to enable the lamp to be turned at right angles to the door. (There is no need to disconnect the wiring harness.)
- Separate gasket from the lamp assembly.
- Turn bulb holder and remove it from the lamp assembly.
- Replace bulb.
- "B" indicates lamp assembly to door panel retaining nuts.
- To re-assemble lamp, reverse disassembly procedure.



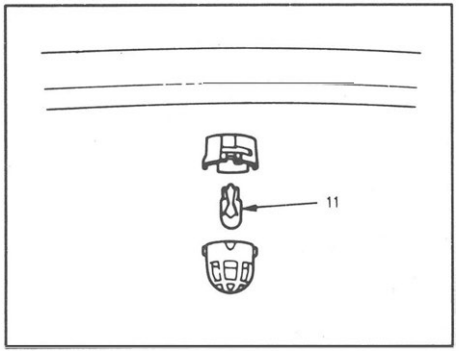
SEDAN: Licence plate light



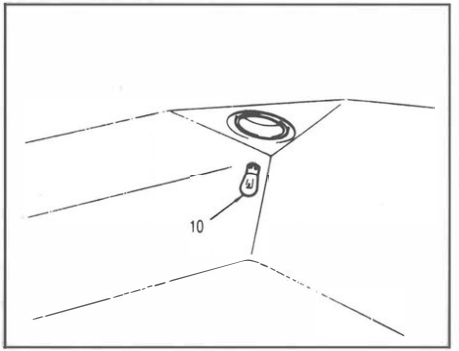
SLE MODEL: Personal lights



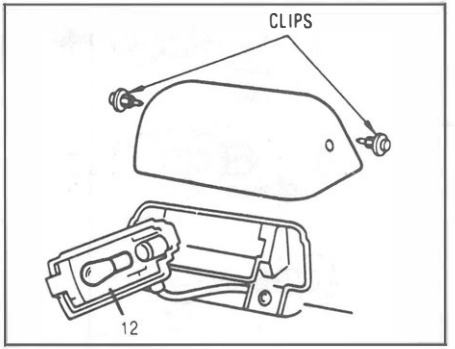
STATION WAGON: Luggage compartment light



SEDAN: Trunk room light

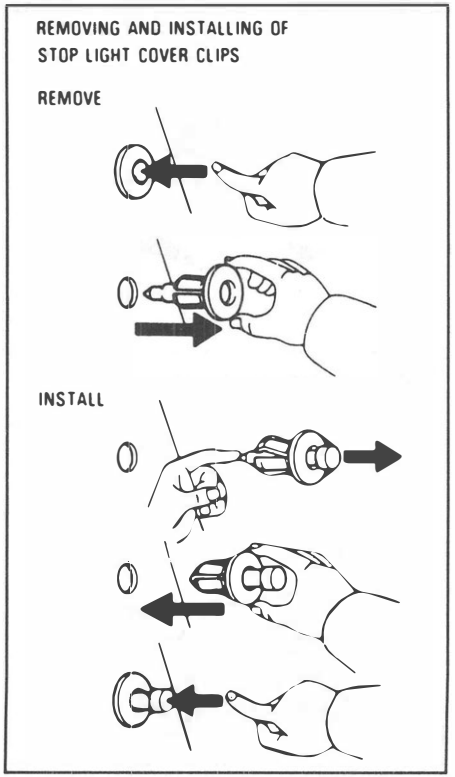


EXCEPT SL AND SLX MODELS: Glovebox light

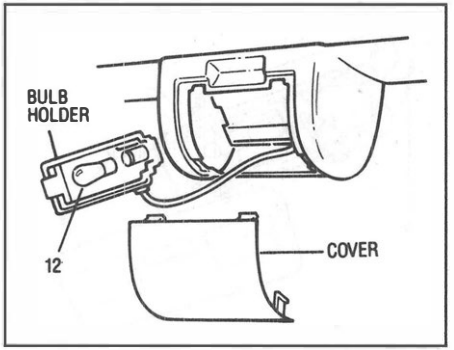


SEDAN: Centre stop lamp

continued overleaf

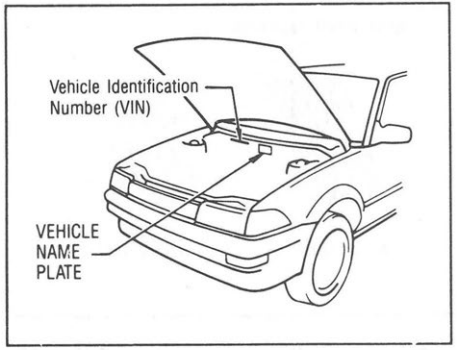


CENTRE STOP LAMP: Clip removal and installation



STATION WAGON: Centre stop lamp

Your Holden's identification

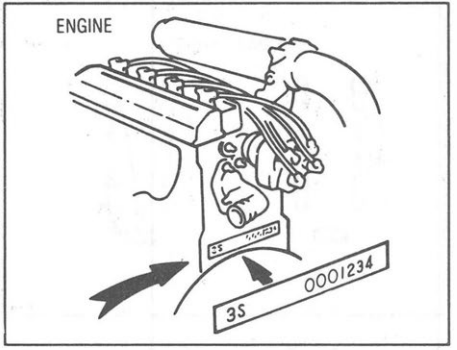


Vehicle identification number (VIN) is stamped on the engine compartment bulkhead.

The vehicle name plate, mounted on the same bulkhead, contains VIN, model data and built date (see below).

"Built Date" is the calendar month and year in which the body shell and power train sub-assemblies are conjoined and the vehicle is driven or moved from the production line.

Engine



The engine number is stamped on the engine block as shown.

Tyre information

The recommended cold tyre pressures and tyre sizes are shown on the tyre placard located on the rear end of the drivers door.

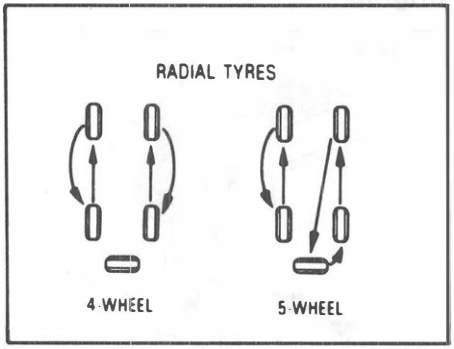
You should check the tyre pressures at least once a month. (And do not forget the spare!) The pressure for the spare tyre should be 0.3 kg/cm², (4 psi, 30 kPa) above the recommended cold tyre pressure and when the spare is fitted to the vehicle the pressure should be adjusted to the recommended operating pressure. Incorrect tyre pressure can reduce tyre life and make your car less safe to drive.

Low tyre pressure results in excessive wear, poor handling, reduced fuel economy, and the possibility of blowouts from over heated tyres. Also, low tyre pressure can cause poor sealing of the tyre bead. If the tyre pressure is excessively low, there is the possibility of wheel deformation and/or tyre separation. So keep your tyre pressures at the proper level. If a tyre frequently needs to be inflated, have it checked by your Holden dealer.

High tyre pressure produces a harsh ride, handling problems, excessive wear at the centre of the tyre tread, and a greater possibility of tyre damage from road hazards.

These instructions for checking tyre pressure should be observed: *continued overleaf*

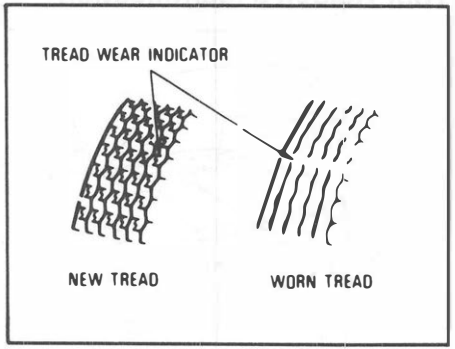
- **The pressure should be checked only when the tyres are "cold".** Pressures should be checked in early morning, preferably before the vehicle has covered 1 kilometre (see tyre placard on rear of driver's door for tyre inflation pressures).
- **Always use a tyre pressure gauge.** The appearance of tyres can be misleading. Besides, tyre pressures that are even just a few kilopascals (kPa) off can degrade handling and ride.
- Do not bleed or reduce tyre pressure after driving. It is normal for the tyre pressure to be higher after driving.
- Be sure to reinstall the tyre inflation valve caps. Without the valve caps, dirt or moisture could get into the valve core and cause air leakage. If the caps have been lost, have new ones put on as soon as possible.



To increase the life of your tyres, we recommend rotating them every 10,000 km.

Including the spare in your rotation will cause your tyres to last longer. However, rotating without the spare means that when replacement time comes, you will only have to buy three new tyres to match the spare, which will be unused. The choice is yours.

When rotating tyres, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tyre pressure, improper wheel alignment, out-of-balance wheels, or severe braking.

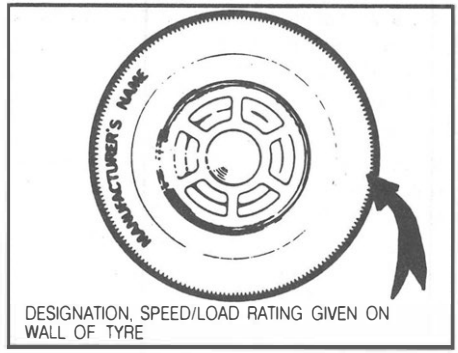


Replace the tyres when the tread wear indicators show.

The tyres on your Holden have built-in tread wear indicators to help you know when the tyres need replacement. If you can see the indicators in two or more adjacent grooves, the tyre should be replaced. When the tread depth wears to 1.6 mm or less, the indicators will appear.

After rotation, be sure to bring the front and rear tyre pressures to specification and check wheel nut tightness.

Before storing radial tyres, mark the direction of rotation and be sure to install them in the same direction when replacing. Tyres should be stored in a cool dry place.



DESIGNATION, SPEED/LOAD RATING GIVEN ON WALL OF TYRE

When replacing a tyre, it is recommended that the same size, construction and load rating (or load index) be used as was originally fitted. A higher load rating is acceptable but in no case should the load rating be less than shown on the tyre placard.

Using any other size or type of tyre may seriously affect ride, handling, speedometer and odometer calibration, ground clearance, and clearance between the body and tyres or snow chains.

When replacing a tubeless tyre, the air valve should also be replaced with a new one.

Do not mix radial, belted or crossply tyres on your car. It can cause dangerous handling characteristics.

If you need to replace only one tyre, mount the new tyre to the axle with the tyre showing the least amount of wear.

Should you be aware of oil or petrol on the road surface, take great care if you have to drive over it as it could cause your vehicle to skid out of control, especially when cornering. It is much safer to avoid the area if you can.

If you have tyre damage such as cuts, splits, cracks deep enough to expose the fabric, and bulges indicating internal damage, the tyre should be replaced.

Tyres with questionable damage should be examined by an expert.

If an air loss occurs while driving, do not continue driving with deflated tyre. Driving even a short distance can damage a tyre beyond repair.

When replacing wheels for some reason, care should be taken to ensure that the wheels are equivalent to those removed in load capacity, diameter, rim width, and offset.

If you have used an aerosol-type sealant for a temporary repair, a permanent vulcanized repair should be made as soon as possible. *Do not drive more than 160 km and over 80 km/h with a temporary repair.*

continued overleaf

Correct replacement wheels are available at your Holden dealer.

If you need to replace the tyres due to wear or damage, the following precautions should be observed when installing the tyre on wheel.

- ***Lubricate wheel and beads with soapy water or tyre mounting lubricant.***
- ***To properly seat tyre on rim, inflate tyre to a maximum of 340-390 kPa (3.5-4.0 kg/cm² 50-56 psi).***
- ***Adjust inflation to recommended pressure.***

Snow chains

Regulations regarding the use of snow chains vary according to state or type of road, so always check them before installing chains.

To prevent chain damage to your car:

1. The chain band will scratch the wheel covers so remove the covers, if equipped, before putting on the chains.
2. Install the chains on the front tyres as tightly as possible. The use of chains on the rear tyres is not recommended. Retighten chains after driving 0.5-1.0 km.
3. Do not exceed 50 km/h, or the chain manufacturer's recommended speed limit, whichever is the lower.
4. Drive carefully avoiding bumps, holes, and sharp turns, which may cause the vehicle to bounce.
5. Follow the instructions of the chain manufacturer.

If you have wheel damage such as bends, cracks or heavy corrosion, the wheel should be replaced.

If you fail to replace damaged wheels, the tyre may slip off the wheel or they may cause loss of handling control.

Replacement with used wheels is not recommended as they may have been subjected to rough treatment or covered long distances and could fail without warning. Also, bent wheels which have been straightened may have structural damage and therefore should not be used. Never use an inner tube in a leaking wheel which is designed for a tubeless tyre.

When a tyre is replaced, the wheel should always be balanced.

An unbalanced wheel may affect vehicle handling and tyre life. Wheels can get out of balance with regular use and should therefore be balanced occasionally.

When replacing wheels for some reason, care should be taken to ensure that the wheels are equivalent to those removed in load capacity, diameter, rim width, and offset.

Correct replacement wheels are available at your Holden dealer.

A wheel of a different size or type may adversely affect handling, wheel and bearing life, brake cooling, speedometer/odometer calibration, stopping ability, headlight aim, bumper height, vehicle ground clearance, and tyre or snow chain clearance to the body and chassis.

ENGINE

Model:
3S-FE engine

Type:
4 cylinder in line, 4 cycle petrol engines.

Bore and stroke (mm):
86.0 × 86.0

Displacement:
1998 cc

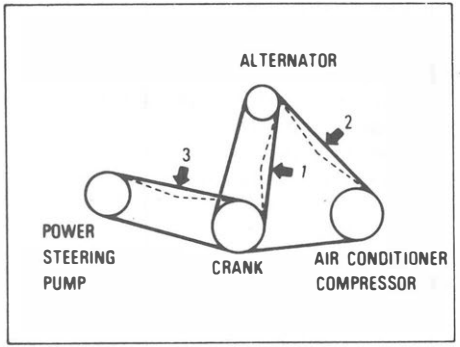
Fuel required:
Unleaded petrol only

Fuel tank capacity:
60 litres (all models)

Tune-up specifications
For the following specifications, refer to emission control label located in the engine compartment.

Spark plug gap
Ignition timing

Drive belt deflection with 10 kg thumb pressure

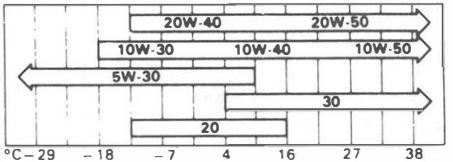


Belt No. 1: 13-17 mm
Belt No. 2: 9-11 mm
Belt No. 3: 10-13 mm

ENGINE LUBRICATION

Oil grade (API)
SF, SG or better

Recommended oil viscosity (SAE):



TEMPERATURE RANGE ANTICIPATED BEFORE NEXT OIL CHANGE

Engine lubricant capacity (litres):

Dry fill	4.5
Drain and refill with filter	4.1
Without filter	3.7

Cooling System
Total capacity (litres):

Manual	6.4
Automatic	6.3

Coolant type:
Holden Radiator Inhibitor specification HN 1791—See "Changing the engine coolant" on page 88.

continued overleaf

CLUTCH
Fluid type: FMVSS No 116 DOT 3, SAE J1703 or AS 1960, Grade 1

MANUAL TRANSAXLE
Fluid capacity, litres: 2.6
Fluid type:
Automatic transmission fluid DEXRON II®

AUTOMATIC TRANSMISSION (automatic transaxle)
Fluid capacity, litres: 5.6
Fluid type: Automatic transmission fluid DEXRON II®

DIFFERENTIAL (automatic transaxle)
Fluid capacity, litres 1.6
Fluid type: Automatic transmission fluid DEXRON II®

BATTERY
Specific gravity reading at 20°C:
100% Charged 1.260
80% Charged 1.235
50% Charged 1.180
Discharged 1.060

CHARGING RATES:
Quick charge 15A max
Slow charge 5A max

BRAKES
Minimum pedal clearance when depressed mm: 95
Pedal freeplay, mm: 3-6
Parking brake adjustment: 5-8 clicks
Fluid type: FMVSS No 116 DOT 3, SAE J1703 or AS 1960, Grade 1

STEERING
Wheel freeplay
Less than 30 mm
Power steering fluid type:
Automatic transmission fluid DEXRON® or DEXRON II®

VEHICLE WEIGHT

Kerb Weight (kg)		G.V.W. (kg)	
Sedan	Wagon	Sedan	Wagon
1230	1275	1690	1765

TYRE PRESSURE
See tyre placard on end of driver's door.

MAXIMUM TOWING LOADS
Trailer with brakes: 1,000 kg
Trailer without brakes: 400 kg
Tow ball vertical load: 50 kg

Notes:
1. Tow ball load is specified under following conditions and assumptions:

a. No specified load equalisation device or towing coupling is used.

b. That the tow ball vertical load when added to the loaded weight of the towing vehicle is not greater than the specified G.V.W. of the vehicle.

2. If the towing load is in excess of 400 kilograms and your vehicle is equipped with an automatic transmission, a Holden Automatic Transmission Oil Cooler should be fitted by your Holden Dealer to ensure optimum performance and long term durability of the automatic transmission.

3. See last paragraph under "Good driving practice" and "Trailer towing" on page 58.

PART B—Warranty and Maintenance

Table of contents

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Warranty Certificate	118
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Emission Control	142
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GENERAL MOTORS - HOLDENS AUTOMOTIVE LTD. NEW VEHICLE WARRANTY

GENERAL MOTORS - HOLDEN'S AUTOMOTIVE LTD. , HEREINAFTER HOLDEN'S, WARRANTS THAT IT WILL MAKE GOOD WITHOUT CHARGE, ANY DEFECT WHICH APPEARS IN THE VEHICLE IDENTIFIED IN THE IDENTIFICATION CERTIFICATE FOUND ON THE INSIDE OF THE FRONT COVER OF THIS HANDBOOK.

Provided

1. the defect has been notified to an authorised Holden Dealer or Service Dealer:
   (a) before the vehicle has travelled a distance of 20,000 km or,
   (b) within 12 months of the date of delivery of the vehicle to the first retail purchaser (or in the case of a demonstrator vehicle within 12 months of the date when is was first placed into service by the Dealer)

   whichever comes first, and
2. the vehicle has been returned to an authorised Holden Dealer or Service Dealer

   and
3. the Dealer has determined that the defect complained of is one of workmanship and *is not* caused by
   (a) misuse or abuse of the vehicle such as by racing, rallying, overloading, etc., or by neglect
   (b) operation of the vehicle after it is known to be defective
   (c) accident or deliberate act
   (d) atmospheric fallout or flood, hail, salt, etc.
   (e) failure to carry out proper maintenance service
   (f) use of incorrect types and grades of fuel, oil or lubricants
   (g) alteration or modification of the vehicle by any party not authorised by Holden's
   (h) the fitting of parts or accessories not marketed by Holden's
   (i) any work carried out on the vehicle by someone other than an authorised Holden Dealer or Service Dealer,

BY THE DEALER (or as otherwise decided by Holden's) MAKING GOOD THE DEFECT BY REPAIR OR, AT THE OPTION OF HOLDEN'S, BY REPLACEMENT.

Excluded from this Warranty are

defects in tyres (these being warranted by their manufacturers), and services such as engine tuning, brake adjustment, replacement of air and oil filter, wiper rubbers, etc. which are required as part of normal vehicle maintenance.

This Warranty applies only to vehicles operated in Australia and is given to the person who is entitled to possession of the vehicle whether as owner, lessee or otherwise and is given in addition to all rights conferred by law on that person.

Unauthorised statements in relation to Holden's Products

No Holden Dealer or other person is authorised or permitted to give or make any statement assertion or undertaking in relation to the quality, performance, characteristics, descriptions or fitness for any purpose of any Holden's product or in connection with the supply of any Holden's product, which is at variance with any written statement assertion or undertaking on any of these subjects given or made by Holden's in its published sales literature, and the Company does not accept any such unauthorised action.

Warranty on Holden's replacement parts

Holden's warrants in respect of Holden's parts and accessories required as replacement parts, that it will make good by repair or at its option by replacement any defect occurring in any such Holden's parts and accessories within 12 months from the date of acquisition or in the case of a Holden's part or accessory which has been installed in a vehicle by a Holden Dealer or Service Dealer before such vehicle has travelled a distance of 20,000 kms from the date of installation, whichever first occurs.

Warranty questions and answers

This section is designed to assist you in understanding the terms of the Holden's Warranty provided with your new car.

The following are some of the most frequently asked questions for which detailed answers have been provided.

Question
How do I go about obtaining Holden's Warranty Service?

Answer
It is the responsibility of the Selling Dealer to provide Holden's Warranty Service, therefore you should take your car to that Dealer whenever Holden's Warranty Service is required. However, if this is not possible, you may go to any other Authorised Holden Dealer. The details recorded inside the front cover of this handbook are required by the Dealer whenever you request Holden's Warranty Service.

Note that the 1,000 kilometre Warranty Service may be carried out by any Holden Dealer, provided you have a letter of introduction from the Selling Dealer. This letter must be arranged prior to obtaining the 1,000 kilometre service.

Question
What should I do if, in an emergency, Holden's Warranty Service is required and an Authorised Holden Dealer is not available to provide such service at the time?

Answer
If, in an emergency, a repair, replacement or adjustment (covered by the Holden's New Vehicle Warranty) is required to enable your car to be operated safely and it is not practical for you to have that service performed by an Authorised Holden Dealer, the service (to the extent that it is necessary to enable your car to be operated safely) may be performed by any other qualified service technician or repairer. A claim for the reasonable cost may be made through the Authorised Holden Dealer who would normally provide you with Holden's Warranty Service. You must also take your car to the Authorised Holden Dealer for inspection of the service and/or completion of any required Holden's Warranty Service as soon as possible.

Question:
Are damage or injury, loss of time, inconvenience, commercial or other direct or indirect loss covered by the Holden's New Vehicle Warranty?

Answer:
No, these items are not covered. The Holden's New Vehicle warranty only covers the repair, replacement or adjustment of those parts of your car which are found to be defective in materials or workmanship, No other types of claim for compensation of any kind, even if the same resulted from a consequence of a defect in materials or workmanship in your car will be recognised under the Holden's New Vehicle Warranty. The rights and remedies which are available to you under any relevant Statutory Enactment or otherwise, at law, in connection with any such claim for compensation, you must pursue outside the ambit of the Holden's New Vehicle Warranty.

Warranty questions and answers - continued

Question
What should I do if my car becomes unsafe or inoperative as a result of a defect which is covered by the Holden's New Vehicle Warranty?

Answer
You should contact the nearest Authorised Holden Dealer as soon as possible and arrange for that Dealer to carry out the required Holden's Warranty Service.

Question:
Will I have to pay for maintenance costs during the Warranty Period?

Answer
Maintenance costs are not covered by the Holden's New Vehicle Warranty. However, the scheduled 1,000 kilometre service specified in this handbook is free of charge (except for any lubricants used), provided that your car has been operated under normal operating conditions and provided also that no modifications (other than a modification made by or at the direction of Holden's) has been made to your car.

The Maintenance Schedules in this handbook specify the minimum maintenance required for your car operating under normal conditions.

The Maintenance items, except where they are required as a result of defects in materials or workmanship, for which you will be required to pay include:-

* Engine tune-up; including replacing spark plugs.
* Replacement of all filters.
* Cleaning or flushing of fuel, coolant, brake, engine, transaxle, etc., after the 1,000 kilometre service.
* Adding to or replacing lubricants.
* Adding to or replacing air conditioning refrigerant, after 5,000 km.
* Any necessary adjustments to drive belts, transaxles, clutch, park brake etc.
* Wheel balancing - after 5,000 kilometres.
* Wheel alignment
* De-dusting or de-glazing of brake linings or pads - after the 1,000 kilometre service.
* Brake lining wear or damage
* Brake disc pad or disc wear
* Battery re-charging
* Paint, bright metal finish and trim, due to normal deterioration.
* Body panel adjustment - after the 1,000 kilometre service.
* Door, or bonnet lock adjustments.
* Glass or channel adjustments - after the 1,000 kilometre service.
* Body rattle, squeaks and general tightening of bolts, fastenings and fittings - after the 1,000 kilometre service.
* Chipped glass or breakage.
* Torn or damaged floor mats or carpets.

Question
Are my tyres covered by the Holden's New Vehicle Warranty?

Answer
No. The tyres fitted to your car are covered by a separate warranty provided by the tyre manufacturer. An Authorised Holden Dealer will assist you by discussing any queries which you might have with respect to the tyre manufacturer's warranty with the tyre manufacturer's representative.

Question
Are Holden's parts and accessories covered by warranties?

If you purchase a Holden's part or accessory from an Authorised Holden Dealer it will by warranted by that Dealer under the Holden's parts and accessories Warranty against defects in materials or workmanship for a period of 12 months from the date at which you purchased it. In the case of a Holden's part or accessory which has been installed in a car by a Holden Dealer or a Service Dealer it will be warranted for a period of 12 months or a distance of 20,000 kms from the date of installation, whichever occurs first.

Maintenance items such as filters, spark plugs, wiper blades and brake pads/linings will require replacement as part of normal maintenance. Such replacements are not the subject of this warranty.

Question
Would my car's engine benefit from fuel additives, oil additives or coolant additives not marketed by Holden's?

Answer
The use of break-in oil, tune-up compounds, friction - reducing compounds and other supplemental additives are *not* recommended; their use will not only increase operating costs, but may be detrimental to the operation of your car.

Question
Will I have to pay for any costs or expenses in connection with the provision of Holden's Warranty Service?

Answer

All parts and labour used in carrying out Holden's Warranty Service at the premises of the Servicing Dealer are free of charge. Whenever Holden's Warranty Service is to be carried out by the Servicing Dealer it is your responsibility to deliver your car to the Servicing Dealer's premises.

If, as a result of a defect which is covered by the Holden's New Vehicle Warranty, your car cannot be driven safely and you arrange for the nearest Authorised Holden Dealer to carry out the required Holden's Warranty Service, Holden's will accept reasonable towing costs to move your car to the nearest Holden Dealer's premises. Before employing a towing company, contact the nearest Holden Dealer and/or Holden's Customer Assistance to obtain guidance.

Authorised Holden Dealers

N.S.W.
Sydney area

ARNCLIFFE **Suttons Motors (Arncliffe) Pty Ltd** - 93 Princes Highway
ASHFIELD **Muirs Motors (Ashfield) Pty Ltd** - 252 Parramatta Road
BALGOWLAH **Mitchell Cox Holden** - 164 Condamine Street
BANKSTOWN **Princeton Holden** - 444 Chapel Road
BAULKHAM HILLS **Tony Packard Holden** - Cnr Victoria Ave & Windsor Rd
BLACKTOWN **West City Holden** - 120~128 Sunnyholt Road
CABRAMATTA **Autovillage Holden** - 266 Hume Highway
CAMPBELLTOWN **Paul Wakeling Holden** - Cnr Blaxland & Campbelltown Rds
CHULLORA **Suttons Motors (Chullora) Pty Ltd** - Cnr Hume Hwy & Waterloo Road
CROWS NEST **New Hunter Holden** - 1 Alexander Street
DEE WHY **Peninsula Holden** - Cnr May & Mooramba Roads
GORDON **Sundell Holden** -Cnr 836 Pacific Hwy & McIntyre Street
HOMEBUSH **Suttons Motors (Homebush) Pty Ltd** - 112 Parramatta Road
HOMEBUSH **Gilbert & Roach Pty Ltd** - 167~173 Parramatta Road
KINGSFORD **John Pellegrini Holden** - 263~271 Anzac Parade
LAKEMBA **Michael Lyons Holden** - 817 Canterbury Road
LIVERPOOL **A.C. McGrath & Co Pty Ltd** - Cnr Hume Hwy & Boundary Road
MIRANDA **Greg Ball Holden** - 1~3 Kiora Road
NEWPORT **Mobil-Newport** - Cnr Barrenjoey Rd & Seaview Ave
PARRAMATTA **Boyded Parramatta** - 65 Church Street
PENNANT HILLS **Barry Smith Holden** - 351~355 Pennant Hills Road
PENRITH **Triway Holdings Pty Ltd** - 39~47 Henry Street
ROCKDALE **Peter Terry Holden** - 571 Princes Hwy
RYDE **Hunter Holden** - 603~605 Victoria Road
SILVERWATER **Suttons Parts** ~ 84 Silverwater Road
ST. MARY'S **John Young Holden** - Cnr Glossop & Harris Streets
WAITARA **Suttons Motors Waitara Pty Ltd** - 90 Pacific Hwy
WINDSOR **Hawkesbury Valley Holden** - 18 Macquarie Street

N.S.W
Country

ADELONG **Robert Broadhurst Holden** - Tumut Street
ALBURY **Brian White Holden** - 647~657 Dean Street
ARDLETHAN **Carr's Engineering** - 4 Mirrool Street
ARMIDALE **New State Motors** - 103 Rusden Street
BALLINA **Quayside Motors** - Pacific Highway
BARADINE **John Farrell & Co.** - Wellingon Street
BARHAM **Hall's Motors Pty Ltd** - 44 Noorong Street

BATHURST **Bathurst Motors Pty Ltd** - 54 Durham Street
BATLOW **Robert Broadhurst Holden** - Pioneer Street
BEGA **South Coast Holden** - 247 Carp Street
BELLINGEN **E.H.H. Raymond Pty Ltd** - Broadway
BELMONT **Challenge Holden** - 444 Pacific Highway
BLAYNEY **Mitchell Holden** - 98 Adelaide Street
BOMBALA **Delcott Engineering Pty Ltd** -Maybe Street
BOOROWA **Boowowa Auto Repairs** - 40 Marsden Street
BOURKE **Bowden & Co (Bourke) Pty Ltd** - Richard Street
BREWARRINA **Hertslet Holden** - Bathurst Street
BROKEN HILL **Donlee Motors Pty Ltd** - Cnr Galena & Rakow Streets
CANOWINDRA **Canowindra Motors** - Gaskill Street
CARDIFF **Brian Kelly Holden** 35~39 MacQuarie Road
CASINO **McKinnon Holden** - 142 Barker Street
CESSNOCK **Geoff Boyd Holden** - 173~175 Wollombi Road
COBAR **Cobar Motors Pty Ltd** - Barton Street
COFF'S HARBOUR **Geoff King Holden** Cnr Pacific Hwy & Thompson Rd
COOLAMON **Coolamon Motors** - Cowabbie Street
COOMA **Summit Holden** - 66~70 Sharp Street
COONABARABRAN **Alan McWhirter Holden** - John Street
COONAMBLE **Moody's Motors** - Aberford Street
COOTAMUNDRA **Jenkins Garage** - 111 Wallendoon Street
COROWA **R.W.E. Fraser & Co Pty Ltd -** 218 Honour Avenue
COWRA **Waugoola Motors Pty Ltd** - Kendal Street
CROOKWELL **Crookwell Autos** -114 Goulburn Street
DENILIQUIN **Burchfield Bros & Co** -112~114 End Street
DORRIGO **Phil Noble Motors** - 46~48 Hickory Street
DUBBO **Graeme Coxon Holden** - Cnr Darling & Bultje Streets
EDEN **Ron Doyle** -113 Imlay Street
FINLEY **Riverina Garage Finley** -104 Murray Street
FORBES **Paddison & Co** - Cnr Rankin St & Court Lane
GILGANDRA **Whitemans Holden** -106 Warren Road
GLEN INNES **Glen Severn Holden** - 167 Grey Street
GLOUCESTER **Grahame's Garage Pty Ltd** -1 Park Street
GOSFORD **Noble Holden** - Pacific Highway
GOULBURN **Geissler Motors** - 279~298 Auburn Street
GRAFTON **Ken Casson Holden -** 71~ 75 Spring Street
GRENFELL **Terry Carroll Motors Pty Ltd** - 40 Alexandra Street
GRIFFITH **Leo Franco Holden** -152 Yambil Street

N.S.W. Country area continued

GULARGAMBONE **Gulargambone Motors** - Bourbah Street
GUNDAGAI **McPherson Motors Pty Ltd** - Sheridan Street
GUNNEDAH **Namoi Valley Motors** - 48 Barber Street
GUNNING **Bailey's Garage Pty Ltd** - Yass Street
GUYRA **Burgess Garage Pty Ltd** - 131~143 Bradley Street
HARDEN **Ginty & O'Leary** - Cnr Station & Albury Streets
HAY **Royce Curtis Motors** - 168 Lachlan Street
HOLBROOK **Lieschke Motors Pty Ltd** - Albury Street
INVERELL **Gaukroger Sales Pty Ltd** - Vivian Street
JERILDERIE **Jerilderie Motors** - Jerilderie Street
JUNEE **Junee Motors** - Seignior Street
KANDOS **Chrisfield Holden** - 11 Angus Street
KATOOMBA **Arthur Brown Holden** - 136 Great Western Hwy
KEMPSEY **Thoroughgood Motors** - 118~132 Belgrave Street
KIAMA **Glen Fulton Holden** - 35~41 Collins Street
KURRI KURRI **Fren's Holden** - 281 Lang Street
KYOGLE **O & A Holden -** 128~134 Summerland Way
LEETON **John Ryan Holden** - 47 Pine Street
LISMORE **John Chant Motors Pty Ltd** - 21~27 Carrington Street
LITHGOW **Lithgow Motors** - 255 Main Street
MACKSVILLE **Eastland Auto Centre** - 18~22 Cooper Street
MACLEAN **O'Halloran Motors** - 175 River Street
MAITLAND **R.H. Taylor Holden** - 557~567 High Street
MOREE **Keith Haddad Holden** - Cnr Boston & Heber Streets
MORUYA **Surfair Holden** - 88 Vulcan Street
MOSS VALE **Vagg & Partners Holden -** 160 -162 Argyle Street
MUDGEE **Blue Ribbon Holden** - 10 Sydney Road
MULLUMBIMBY **Tony Carsburg Holden** - 2 Argyle Street
MUSWELLBROOK **Upper Hunter Motors Pty Ltd** - 116 Bridge Street
NARRABRI **Allan Cooper Holden** - 181 Maitland Street
NARRANDERA **C. & S. Coelli** - 6 Boundary Road
NARROMINE **L.E. Stanley Pty Ltd** - Dandaloo Street
NEWCASTLE **Young & Green Pty Ltd -** 745 Hunter Street
NOWRA **Glendon Motors Holden** - 301~313 Princes Highway
ORANGE **Canobolas Holden** - 348 Summer Street
PARKES **Go Motors** - Cnr Mitchell & Clarinda Streets

N.S.W.
Country area
continued

PEAK HILL **S.Leary & Sons Pty Ltd** - Mingelo Street
PORT MACQUARIE **Todd Holden -** 16~20 Clarence Street
QUIRINDI **Browning Motors** - 82 Henry Street
SCONE **Upper Hunter Motors (Scone)** - 91 Kelly Street
SINGLETON **Lancaster Holden** - 80 John Street
TAMWORTH **Kensells Holden** - Cnr Bourke St & Kable Ave
TAREE **Hardes Auto House -** 61 Manning Street
TEMORA **Rod Lovering Holden** - 2 Stockinbingal Road
TENTERFIELD **Sexton & Green (Sales & Service) Pty Ltd** -148 Rouse Street
TORONTO **Young & Green (Toronto) Pty Ltd** - Carey Street
TUMBARUMBA **Broadhurst Autos** - Albury Street
TUMUT **Nancarrow Holden** - 35 Fitzroy Street
ULLADULLA **Johnston Holden** - 150 Princes Highway
TWEED HEADS **Tweed Motors Pty Ltd** - 75~79 Pacific Highway
VALLEY HEIGHTS **Kerrys Motors Pty Ltd** - 28 Great Western Highway
WAGGA **Wagga Motors Pty Ltd** - 32 Dobney Avenue
WALCHA **Bowden's Garage Pty Ltd -** Derby Street
WALGETT **Walgett Garage Pty Ltd** - Wee Waa Street
WALLA WALLA **D.E. Lieschke & Son Pty Ltd** - Commercial Street
WARIALDA **Roger Moore** - Hope Street
WARILLA **Wilson's Warilla Pty Ltd** - 29 Shellharbour Road
WARREN **Fuller Bros** - Dubbo Street
WELLINGTON **Gersbach's Garage Pty Ltd** - 92 Lee Street
WEST WYALONG **West Wyalong Motors** - 183 Main Street
WOLLONGONG **Dwyers Pty Ltd** - 31~33 Crown Street
WOODENBONG **Frawley Bros Holden** - Unumgar Street
WYONG **W.M. Holden** - Pacific Highway
YASS **Bill Nesbitt Holden** - 221 Comur Street
YOUNG **Harden & Geelan Holden** - 48 Boorowa Street

N.S.W. Country area continued

BELCONNEN **Gerald Slaven Holden** - Josephson Street
BRADDON **Beazley & Bruce** - 44 Mort Street
PHILLIP **Commonwealth Motors Pty Ltd** - 158 Melrose Drive

A.C.T.

ABBOTSFORD **East City Holden** - 601 Victoria Street
BERWICK **Barry Bourke Holden** - 755 Princes Highway
BUNDOORA **Watson Holden** - 413 Grimshaw Street
BURWOOD **Penfold Holden** - 63 Burwood Road
CAULFIELD **Booran Holden** - 1049 Glenhuntly Road
CHELSEA **Harrison Holden** - 370 Nepean Highway
CHELTENHAM **Allwell Holden** - 1212 Nepean Highway
DANDENONG **Graeme Blanchard Holden** - Princes Highway
ELSTERNWICK **Reg Hunt Holden** - 77 Nepean Highway
ESSENDON **Preston Motors (Essendon) Pty Ltd** - 205~211 Keilor Road
FAWKNER **Mantello Holden** - 1263 Sydney Road
FERNTREE GULLY **Neilson Holden F.T.G.** - 980 Burwood Highway
FOOTSCRAY **Alan Mance Holden** - 435 Barkly Street
FRANKSTON **Noel Gould Holden** - 140 Dandenong Road
GEELONG **R & B Smith Holden** - 510 Moorabool Street
GEELONG **Winter & Taylor (Sales) Pty Ltd** - 23 Cavendish Street
GLEN WAVERLEY **Geoff Brady Holden** - 565~577 Springvale Road
HASTINGS **Westernport Holden** - 843 Frankston~Flinders Road
LILYDALE **Noel Dight Holden** - 344 Main Street
MORNINGTON **John Collins Holden** - 976 Nepean Highway
OAKLEIGH **Garry & Warren Smith** - 1575 Dandenong Road
RINGWOOD **Patterson Cheney Holden** - 45~57 Maroondah Highway
SOUTH MELBOURNE **Patterson Cheney Holden** - 132 Sturt Street
SUNSHINE **Kevin Dennis Holden** - 272 Ballarat Road
WERRIBEE **Ballan Holden** - Princes Highway
WEST MELBOURNE **Reg Hunt Holden** - 577 King Street

Victoria
Melbourne area

ALEXANDRA **Alexandra Tyre & Hire** - 79 Grant Street
ARARAT **David Reid Motors** - High Street
BAIRNSDALE **The Big Garage** - 199 Main Street
BALLARAT **Peter Amor Motors** - 2~26 Mair Street East
BENALLA **Arnott's Motors** - 88~90 Bridge Street
BENDIGO **Ron Poyser Holden -** Cnr High & Myrtle Streets
BIRCHIP **R.L. & C.J. Bales** - 38 Cumming Avenue
BOORT **Jaron Motors** - 55 Godfrey Street
CAMPERDOWN **Ross Holt Holden** - 114 Manifold Street
CASTERTON **Coxons Autos** - 139 Henty Street

Victoria
Country area

CASTLEMAINE **Terry Scully Motors** - Barker Street
CHARLTON **K.V. Charlton** - 70 High Street
COBRAM **Frank D'Alberto Holden** - 56~60 Punt Road
COHUNA **Humphrey Motors Pty Ltd** - 13~15 Market Street
COLAC **Parker Bros Motors Co** - 224 Murray Street
CORRYONG **Boers Motors** - 88~90 Hanson Street
DAYLESFORD **K. . Little Pty Ltd** - Vincent Street
DIMBOOLA **Westerfield Motors Pty Ltd** - 64 Lloyd Street
DONALD **O.A. Shilton & Sons Pty Ltd** - Wood Street
ECHUCA **Echuca Motors** - 148 Murray Valley Highway
EUROA **Croxford Holden** - 41 Clifton Street
FOSTER **Ray Dower Motors** - 78 Main Street
HAMILTON **Peter Sandow Motors Pty Ltd** -261 Gray Street
HOPETOUN **Hopetoun Motors** - 78 Lascelles Street
HORSHAM **Ranley Holden** - 22 O'Callaghans Parade
KANIVA **Kaniva Motors** - 82 Commercial Street
KOOWEERUP **Gray Blakey Holden** - Station Street
KORUMBURRA **Peter Dunlevie Holden** - 42 Commercial Street
KYABRAM **D'Alberto Holden** - 60 McEwen Road
KYNETON **Mollison Motors Pty Ltd** - 167 Mollison Street
LEONGATHA **Gleeson Holden** - 37~43 Bair Street
MAFFRA **Knight Paterson Holden** - Johnson Street
MANSFIELD **Christopher & Kirley Automotive Services** - Early Street
MARYBOROUGH **Graham Jacka Holden** - 35 Nolan Street
MILDURA **Stuart & Harrison (Sales) Pty Ltd** - 24~32 Deakin Avenue
MINYIP **Munro Sales & Service** - 8 Market Street
MIRBOO NORTH **Ridgeway Motors** - 106 Ridgeway Road
MORTLAKE **W. Christian (Mortlake) Pty Ltd** - 107 Dunlop Street
MURRAYVILLE **Peers Motors** - McKenzie Street
NATHALIA **BHB Motors** - 6 Blake Street
NHILL **Ivan Morrow Motors Pty Ltd** - 71~73 Nelson Street
NULLAWIL **Nullawil Motors & General Engineers** - Calder Highway
ORBOST **Merlin Motors** - Stanley Street
PORTLAND **Reynolds Holden** - Henty Highway
QUAMBATOOK **Quambatook Auto Services** - 32 Gutherie Street
ROCHESTER **Bruce Hocking Motors Pty Ltd** - 71 Moore Street
RUTHERGLEN **Jasper Bros Pty Ltd** - Main Street

Victoria Country area continued

SALE **Sturgess Smith Holden** - 232~240 York Street
SEA LAKE **Paddy Smith Holden** - Calder Highway
SEYMOUR **Neil Beer Holden** - 49 Emily Street
SHEPPARTON **Parker Bros Auto Co** - Melbourne Road
STAWELL **Tonkin Motors** - 71~73 Main Street
ST. ARNAUD **Maurie McGrath Motors** - 126 Napier Street
SWAN HILL **Alan Rogers Motors** - 59~61 Nyah Road
TALLANGATTA **Crispin Motors** - 21 Towong Street
TIMBOON **Timboon Motors** - Bailey Street
TRARALGON **Colin Watson Holden** - Princes Highway
UNDERBOOL **A.J. Gloster & Sons** - Cotter Street
WANGARATTA **Alan Capp (New Cars) Pty Ltd** - Tone Road
WARBURTON **Col McKenzie Holden** - Main Street
WARRACKNABEAL **Amor Motors Aubrey Truck Sales** - 33 Woolcock Street
WARRAGUL **John Carter Holden** - 151 Queen Street
WARRNAMBOOL **Callaghan Motors Pty Ltd** - 133~137 Fairy Street
WONTHAGGI **J.P. Holden** - 2 Murray Street
YARRAM **Graham Helleren Motors Pty Ltd** - Bland Street
YARRAWONGA **Pigdons Pty Ltd** - Belmore Street

Victoria Country area continued

BURNIE **Motors Burnie** - 84~89 Marine Terrace
DEVONPORT **Motors Devonport** - Victoria Parade
HOBART **Motors Pty Ltd** - 179 MacQuarie Street
KING ISLAND **King Island Motors Pty Ltd** - Netherby Road, Currie
LAUNCESTON **Motors Launceston** - Elizabeth Street
SMITHTON **Motors Pty Ltd** - 116 Nelson Road
ULVERSTONE **Motors Pty Ltd** - 99 Reibey Street

Tasmania

ALBION **Bill Harrison Car Sales** - Frodsham Street & Crosby Road
ASPLEY **Zupps (Aspley)** -1442 Gympie Road
BOOVAL **Zupps Holden** - 246 Brisbane Road
MOOROOKA **John Sivyer Holden** - 1060 Ipswich Road
MT. GRAVATT **Zupps Motors Pty Ltd** - 1310 Logan Road
NEWSTEAD **Eagers Retail Pty Ltd** - 95 Breakfast Creek Road
NUNDAH **Eagers (Northside)** - 1319 Sandgate Road
PETRIE **North Pine Motors** - Gympie Road
REDCLIFFE **Village Holden** - 425 Elizabeth Avenue
SPRINGWOOD **Motorama Holden** - Cnr Pacific Highway & Brennan Street
WINDSOR **Leach Holden** - 143 Newmarket Road
WOOLLOONGABBA **Armstrong Holden** - 73 Ipswich Road
WYNNUM **Doug Barton Holden** - 200 Tingal Road

Queensland
Brisbane area

ATHERTON **Redding Motors Pty Ltd** - 2 Cook Street
AYR **Honeycombes Sales & Service** - 213~217 Queen Street
BILOELA **Richard Cooley Holden** - Dawson Highway
BLACKWATER **B.P. Tyre Power** - Capricorn Highway
BOWEN **McDermott Holden** - 98 Herbert Street
BUNDABERG **Ross Gray Holden** - Takalvan Street
CABOOLTURE **Becham Holden** - Bribie Island Road
CAIRNS **Ireland Holden** - 227~233 Mulgrave Road
CALOUNDRA **Drinnan Holden** - Caloundra Road
CAPELLA **S.A. Rickett & Co** - Peak Downs Street
CHARLEVILLE **Alan Dobbin Holden** - 129 Alfred Street
CHARTERS TOWERS **Peters Holden** - 57 Mosman Street
CHINCHILLA **Ainsworth Motors & Machinery Pty Ltd** - 55 Chinchilla Street
CROWS NEST **Dennis Nissen Motors** - 14 William Street
CUNNAMULLA **South West Autos** - 25 John Street
DALBY **Johnson's Holden** - 36 Drayton Street
EMERALD **Leahy Motors** - Clermont Street

Queensland
Country area

GATTON **Gatton Auto Centre** - 67 Railway Street
GLADSTONE **Andersons Auto City -** 56 Yaroon Street
GYMPIE **Madills** - 35 Mellor Street
INGHAM **Origlasso Motors** - 99 Lannercost Street
INNISFAIL **I.C. Taylor Pty Ltd** - 117 Edith Street
JULIA CREEK **Julia Creek Motors Pty Ltd** - Burke Street
KILCOY **Hobart's Garage** - 58 Mary Street
KINGAROY **John Dundas Pty Ltd** - 38 King Street
LAIDLEY **Buhse's Garage Pty Ltd** - 5 Spicer Street
LONGREACH **Longreach Motors** - 33 Swan Street
MACKAY **Pioneer Holden** - Cnr Gordon & Wellington Streets
MAROOCHYDORE **Sunco Holden** - Wises Road
MARYBOROUGH **Whitaker Holden** - 109~111 March Street
MOUNT ISA **Barkly Motors Pty Ltd** - Marian Street
MURGON **Clifton Motors** - McAllister Street
NAMBOUR **Kallenbach Motors** - 139 Howard Street
NANANGO **Nanango Motors Pty Ltd** - 72~74 Drayton Street
NOOSA HEADS **Gilbert Motors Pty Ltd** - Cnr Cooroy Noosa Rd & Coral Tree
PROSERPINE **Crossley Car Whitsunday Pty Ltd** - 162~164 Main Street
QUILPIE **Quality Motors** - Boonkai Street
ROCKHAMPTON **Lawrence's** - 327 Richardson Road
ROMA **Maranoa Multi Agencies** - Bowen Street
SOUTHPORT **Lockhart Holden** - Cnr Nerang Road & Olsen Avenue
SPRINGSURE **Springsure Motors** - Eclipse Street
ST. GEORGE **Halpin Motors** - 39~41 Grey Street
STANTHORPE **Central Motors** - 42 Maryland Street
TARA **Shaw Motors** - 10 Wilson Street
TOOWOOMBA **Eagers Retail Pty Ltd** - Cnr James & Hume Streets
TOWNSVILLE **Tony Ireland Holden** - 87~91 Charters Towers Road
TULLY **Island Coast Holden** - 12 Richardson Street
WARWICK **Deighton Motors Pty Ltd** - Grafton Street
WINTON **Gillespie Motor Dealers Pty Ltd** - Elderslie Street

Queensland
Country area

ALICE SPRINGS **Kittle Bros (Alice Springs) Pty Ltd** - Cnr Wills & Railway Terrace
DARWIN **Kerry Holden** - 21~25 Stuart Highway
KATHERINE **Master Motors** - 1130 Victoria Highway

N.T.

CANNINGTON **Brian Gardner Holden** - 1308 Albany Hwy
FREMANTLE **Shacks Holden** - 64 Queen Victoria Street
GOSNELLS **Lance Gibbons Holden** - 2325 Albany Highway
MELVILLE **Melville Motors Pty Ltd** - 532~536 Canning Highway
MIDLAND **Goldy Holden** - 161 Great Eastern Highway
MORLEY **Metro Motors Pty Ltd** - 212 Walter Road
NAVAL BASE **Shacks Cockburn** - 15 Rockingham Road
OSBORNE PARK **North City Holden** - Cnr Scarborough Beach Rd & Harborne St
PERTH **City Motors** - 505 Newcastle Street
VICTORIA PARK **Young's Holden** - 529 Albany Highway
WANNEROO **Phoenix Holden** - 5 Berriman Drive

W.A.
Perth area

ALBANY **Manley Stanwell Holden** - 92~98 Earl Street
BEVERLEY **Barnsley Holden** - 149 Vincent Street
BOYUP BROOK **Strapp Motors** - 7 Bridge Street
BRIDGETOWN **Kordics Bridgetown** - Hampton Street
BROOKTON **Coote Motors** - Robinson Road
BROOME **Norwest Holden** - McPherson Street
BRUCE ROCK **McCall Motors** - Butcher Street
BUNBURY **Wallace Holden** - 72 Spencer Street
BUSSELTON **Fennessy Holden** - 2~4 Bussell Hwy
CARNAMAH **T & H Walton Stores Pty Ltd** - Robertson Street
CARNARVON **North West Autos** - 175 Robinson Street

W.A.
Country area

COLLIE **Station Motors** - 102 Throssell Street
CORRIGIN **Farmpower** - Kunjin Road
CRANBROOK **Cranbrook Motors** - 11~13 Gathorne Street
DALWALLINU **Reid & Inglis** - Johnson Street
DERBY **Derby Auto Repairs** - 27 Loch Street
ESPERANCE **Dempster Holden** - Norseman Road
GERALDTON **Youngs Motors** - Cathedral Avenue
GNOWANGERUP **G.S. Hendry & Co Pty Ltd -** Yougenup Street
KALGOORLIE **Kyle Motors -** 114 Boulder Road
KARRATHA **Moxham Holden**- Lot 1952 Balmoral Road
KATANNING **Edwards Holden** - 159 Clive Street
KELLERBERRIN **Dowding Motors** - 1 Mitchell Street
KUNUNURRA **Elgee Automotive & Diesel Services** - Mango Street
MANJIMUP **Kordics** - Rose Street
MERREDIN **Carson's of Merredin** - 112 Barrack Street
MOORA **Frank Lewis Holden** - Gardiner Street
MORAWA **T & H Walton Stores - Morawa -** 6 Buron Road
NAREMBEEN **W.J. Nichols (1979) Pty Ltd** - 20 Churchill Street
NARROGIN **Narrogin Motors** - Cnr Ensign & Federal Streets
NORTHAM **Withnell Motors** - 58 Fitzgerald Street
PORT HEDLAND **Leete Motors** - 26~28 Anderson Street
WAGIN **Marley White & Co** - Tudor Street
WILLIAMS **R.S. Logie & Sons** - Rosselloty Street
WONGAN HILLS **Agro Machinery Pty Ltd** - Fenton Street
WYALKATCHEM **J.S. Rimmer & Sons** - Railway Terrace

W.A.
Country area
continued

ADELAIDE **City Holden** - 203~221 Grenfell Street
ELIZABETH **Peter Page Holden** - Elizabeth Way
MALVERN **Claridge Holden** - 361~367 Unley Road
PORT ADELAIDE **Smiths of Port Adelaide** - 271 Commercial Road
REYNELLA **Southgate Holden** - 49~59 Main South Road
SOMERTON PARK **Ellers Holden** - 278 Brighton Road
THEBARTON **United Holden** - 1 Port Road
VALLEY VIEW **Plaza Holden** - 817~839 North East Road

S.A.
Adelaide area

BALAKLAVA **Balaklava Motors** - 4 Wallace Street
BERRI **Rosenthal Bros Pty Ltd** - Vaughan Terrace
CEDUNA **Beck Motors Pty Ltd** - Poynton Street
CLARE **Brian Holmes Holden** - 7 Old North Road
CLEVE **Herbert Motors Pty Ltd** - Main Street
CRYSTAL BROOK **Newitt's** - 26 Brandis Street
CUMMINS **Trigg & Wedd** - 3 Umlauf Street
GAWLER **Steinhage Holden** - Cnr Murray & Bridge Sts
JAMESTOWN **Jamestown Motors Pty Ltd** - 23 Spalding Road
KADINA **J.H. Rosewarne Pty Ltd** - Graves Street
KEITH **Farmers Centre** - McBain Street
KINGSCOTE **Roberts Motors** - Telegraph Road
KINGSTON **Lecornu's Service Garage** - Agnes Street
LAMEROO **Des Pahl Motors** - 27 Chandos Terrace
LOXTON **Flight Motors Pty Ltd** - Bookpurnong Terrace
MAITLAND **Maitland Motors Pty Ltd** - 58 Robert Street
MALLALA **Curnow's Garage Pty Ltd** - Balaklava Road
MENINGIE **Peter Hood Holden** - Cnr Princes Highway & Coonalpyn Road
MILLICENT **Dennis Cowling Holden** - 98 George Street
MT. BARKER **Gilbert Motors (Mt. Barker) Pty Ltd** - 57 Adelaide Road
MT. GAMBIER **O.G. Roberts & Co** - Jubilee Highway West
MURRAY BRIDGE **Dutton Motors Pty Ltd** - 7 Adelaide Road
NARACOORTE **Kingcraig Motors Pty Ltd** - 158~164 Smith Street
PORT AUGUSTA **Ken Feltus Holden** - 38 Stirling Road
PORT LINCOLN **City Motors** - King Street
PORT PIRIE **Spencer Holden** - 50 Ellen Street
RENMARK **Rosenthal Motors Pty Ltd** - Ral Ral Avenue
STRATHALBYN **Gilbert Motors (Strathalbyn) Pty Ltd** - High Street
TANUNDA **E.H. Hage & Co Pty Ltd** - 50 Murray Street
TUMBY BAY **Seaview Motors** - Tumby Terrace
VICTOR HARBOR **Southern Holden** - 5 Victoria Street
WAIKERIE **Riverside Holden** - 6 Crush Terrace
WHYALLA **Mitchell Holden** - 64 Essington Lewis Avenue
YANKALILLA **Martin Motors Pty Ltd** - Main Street
YORKETOWN **Southway Holden** - 7 Minalaton Road

S.A.
Country area
continued

Customer assistance

We want you to be happy with your new car together with the people you deal with while you have the car.

Normally, any problems which may arise with the sales transaction, operation or servicing of your car will be handled by your Dealer's Sales and Service Department.

We realise however, that, with the best intentions, misunderstandings do occur sometimes.

Accordingly, we suggest you discuss any concern with one of the Dealer's management people. If you haven't received satisfaction from the Sales Manager or Service Manager - go to the General Manager or to the Dealer himself.

By now you should have satisfaction. If not, you have the facility of the Holden's Customer Assistance Service office at your disposal. The Holden's Customer Assistance representatives can be telephoned from anywhere within Australia for only the cost of a local call. The Melbourne area number is 646 5466 Outside the Melbourne Metropolitan area, the number is 008 03 3349.

If your concern relates to parts/accessories and you have made contact with the Dealer or Distributor without satisfaction, you may contact Holden's Service Parts Operations on (03) 797 7341.

Naturally, telephoning is the quickest and the best way of contact. However, if you prefer to write the address is:

The Manager
Holden's Customer Assistance Services
GPO Box 548D
Melbourne, 3001.

Your letter should clearly outline your concern or query, and include the following:

* Your name and address
* Telephone numbers, both Private & Business
* Servicing Dealership name and address
* Vehicle model
* Vehicle Identification Number (V.I.N.)
* Date of purchase
* Current odometer reading

Most of this information will be found on the Vehicle Identification Certificate, located inside the front cover of this handbook.

Before you write however, remember that the telephone is the quicker and more efficient means of communication.

Vehicle Maintenance Schedule

An odometer reading or time interval determines when service is necessary.

For most people, the odometer reading will indicate when service is needed. If, however, you drive very little, your vehicle should be serviced at least every 6 months, as shown on the schedule. ***Under severe driving conditions,*** maintenance is required more frequently than listed in the table.

The following could be considered to be severe driving conditions:

- Extensive idling such as taxis, police cars or door to door delivery vehicles.
- Repeated short trips (less than 8 km).
- Driving on rough and/or muddy roads.
- Driving on dusty roads.
- Camper or trailer towing.
- Driving in extremely cold weather and/or on salted roads.
- Repeated short trips in extremely cold weather.

The periodic maintenance service should be followed to ensure correct emission control at all times.

If any of the components or systems are out of adjustment, toxic elements (CO, HC and NOx) in excess of prescribed levels may be emitted into the atmosphere.

Maintainence operation (description of lettering given in box below "SERVICE PERIODS"):
R = Replace or change
A = Check/adjust as necessary
I = Inspect, adjust or report as necessary
T = Tighten to specified torque

Ringed lettering shows preferred additional service period for certain items when vehicle is subjected to severe or abnormal driving conditions.

SERVICE PERIODS																							
X1000 km	1	5	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
OR MONTH		3	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
BASIC ENGINE COMPONENTS																						
1. Timing belt#1	—	—	—	—	—	—	—	—	—	—	—	Ⓡ	—	—	—	—	—	—	—	—	—	Ⓡ
2. Valve clearance	—	—	—	—	—	—	—	—	—	A	—	—	—	—	—	—	—	A	—	—	—	—
3. Drivebelts	—	—	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I	—	I
4. Engine oil (grade SF, SG or better)#2	—	Ⓡ	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
5. Engine oil filter#2	—	Ⓡ	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
6. Cooling and heater system hoses and connections#3	—	—	—	—	—	I	—	—	—	I	—	I	—	I	—	I	—	I	—	I	—	I

#1 Timing belt replacement is recommended at every 100,000 km if vehicle idles for extensive periods and/or is driven long distances at low speeds—taxis, police cars or door to door delivery vehicles are typical examples.

#2 Change every 5000 km or 3 months under severe driving conditions.

#3 After 80000 km or 48 months, inspect every 20000 km or 12 months, whichever comes first.

Maintainence operation (description of lettering given in box below "SERVICE PERIODS"):
R = Replace or change
A = Check/adjust as necessary
I = Inspect, adjust or report as necessary
T = Tighten to specified torque

Ringed lettering shows preferred additional service period for certain items when vehicle is subjected to severe or abnormal driving conditions.

SERVICE PERIODS																							
X1000 km	1	5	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
OR MONTH		3	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
7. Engine/radiator coolant (see "Cooling system inhibitor selection")#4/5	—	—	—	R	—	R	—	R	—	R	—	R	—	R	—	R	—	R	—	R	—	R
8. Exhaust pipes and mountings	—	—	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I
AIR CONDITIONER (A/C)																						
1. Inspect refrigerant level sight glass	I	—	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
2. Inspect pipes and tubes including alignment	I	—	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
3. Inspect drain tube	I	—	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
4. Inspect idle cut-off and/or idle-up	I	—	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
5. Inspect condenser, clean if necessary	—	—	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
IGNITION SYSTEM																						
1. Battery	—	—	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
2. Spark plugs (3S-FE engine)	—	—	—	—	—	R	—	—	—	R	—	—	—	R	—	—	—	R	—	—	—	R
FUEL SYSTEM																						
1. Fuel filter	—	—	—	—	—	—	—	—	—	R	—	—	—	—	—	—	—	R	—	—	—	—
2. Air filter#6	—	Ⓘ	Ⓘ	I	Ⓘ	R	Ⓘ	I	Ⓘ	R	Ⓘ	I	Ⓘ	R	Ⓘ	I	Ⓘ	R	Ⓘ	I	Ⓘ	R

#4 Coolant does not contain anti-freeze.

#5 It is recommended that Coolant-Conditioner specification number HN 1791 be placed in radiator before pouring in fresh water—see "Cooling System Inhibitor Selection" page 140 in Part "B" of this manual.

#6 Inspect every 2500 km or every 6 weeks if subjected to severe or dusty conditions.

Maintainence operation (description of lettering given in box below "SERVICE PERIODS"):
R = Replace or change
A = Check/adjust as necessary
I = Inspect, adjust or report as necessary
T = Tighten to specified torque

Ringed lettering shows preferred additional service period for certain items when vehicle is subjected to severe or abnormal driving conditions.

SERVICE PERIODS																								
X1000 km	1	5	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
OR MONTH		3	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
3. Fuel tank cap, fuel line and connections, and/or fuel vapour control valve#7	—	—	—	—	—	I	—	—	—	I	—	I	—	I	—	I	—	I	—	I	—	I
EMISSION CONTROL SYSTEM																						
1. Charcoal canister	—	—	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I	—	—	—	I
CHASSIS AND BODY																						
1. Clutch pedal, release fork	I	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Brake pedal and parking brake	I	—	—	I	—	I	—	—	—	I	—	I	—	I	—	I	—	I	—	I	—	I
3. Brake linings and drums (including parking brake linings and drums)	—	—	(I)	(I)	(I)	I	(I)	(I)	(I)	I	(I)	(I)	(I)	I	(I)	(I)	(I)	I	(I)	(I)	(I)	I
4. Brake pads and discs	—	—	(I)	I	(I)	I	(I)	I	(I)	I	(I)	I	(I)	I	(I)	I	(I)	I	(I)	I	(I)	I
5. Brake fluid	I	—	I	I	I	R	I	I	I	R	I	I	I	R	I	I	I	R	I	I	I	R
6. Clutch fluid	I	—	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
7. Brake line pipes and hoses	I	—	(I)	I	(I)	I	(I)	I	(I)	I	(I)	I	(I)	I	(I)	I	(I)	I	(I)	I	(I)	I
8. Power steering fluid	—	—	—	I	—	I	—	—	—	I	—	I	—	I	—	I	—	I	—	I	—	I

#7 After 80000 km or 48 months, inspect every 20000 km or 12 months whichever comes first.
#8 Refer Vacuum Hose Information Label under hood.

Maintainence operation (description of lettering given in box below "SERVICE PERIODS"):
R = Replace or change
A = Check/adjust as necessary
I = Inspect, adjust or report as necessary
T = Tighten to specified torque

Ringed lettering shows preferred additional service period for certain items when vehicle is subjected to severe or abnormal driving conditions.

SERVICE PERIODS																							
X1000 km	1	5	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
OR MONTH		3	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
9. Steering wheel and linkage	—	—	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I
10. Drive shaft boots	—	—	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I
11. Ball joints and dust covers	—	—	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I	Ⓘ	I
12. Differential gear oil (automatic transaxle only)	—	—	—	I	—	R	—	I	—	R	—	I	—	R	—	I	—	R	—	I	—	R
13. Automatic transaxle fluid	—	—	—	I	—	I	—	R	—	I	—	I	—	R	—	I	—	I	—	R	—	I
14. Manual transaxle fluid#9	—	—	—	I	—	I	Ⓡ	I	—	I	—	R	—	I	—	I	Ⓡ	I	—	I	—	R
15. Front and rear suspensions	—	—	—	Ⓘ	—	I	—	Ⓘ	—	I	—	Ⓘ	—	I	—	Ⓘ	—	I	—	Ⓘ	—	I
16. Chassis and body bolts and nuts	T	—	Ⓣ	T	Ⓣ	T	Ⓣ	T	Ⓣ	T	Ⓣ	T	Ⓣ	T	Ⓣ	T	Ⓣ	T	Ⓣ	T	Ⓣ	T
17. Tyres and inflation pressures	—	—	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
18. All lights, horns, wipers and washers	—	—	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
ROAD TEST																						
1. Road test vehicle	—	—	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
2. Front wheel alignment (side slip)#10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#9 Replace every 100,000 km or 60 months whichever comes first.
#10 Inspect when abnormal condition is noted.

Air conditioner information

For guidance on how to operate the air conditioner, see "How the air conditioner controls work" in part "A" of this Handbook.

In the process of conditioning air, the air conditioner unit removes moisture. The moisture runs onto the surface beneath the vehicle, so do not become alarmed if a pool of water is noticed below a stationary vehicle when the air conditioner is operating.

The air conditioner items requiring service are given on each of the service vouchers in this book.

Like the rest of your vehicle, the air conditioner does require regular maintenance. As an added precaution, the unit should be turned off if a malfunction is noticed (i.e. if it is not working) and the vehicle taken to an authorised Holden Dealer at the earliest possible convenience.

To keep the air conditioner as free as possible from odours that may be given off from such things as tobacco smoke, it is best to use the FRESH mode as often as conditions allow. This gives odour giving elements less chance to condense on the evaporator fins of the cooling unit.

Important service information

Vehicle efficiency
Always have your Holden serviced regularly, for by doing this, you will ensure the continued efficiency of your vehicle.

It is recommended that you ask your Holden Dealer to carry out the service because they are equipped with special service tools, and have staff experienced in servicing Holden vehicles.

Recommended daily and weekly checks
The checks given below are easily carried out and are strongly advised.

DAILY CHECKS:
1. Coolant (radiator water) level—see "Cooling system" in part "A" of this Handbook.
2. Engine oil level—see "Checking the oil" in part "A" of this Handbook.

WEEKLY CHECKS:
1. Tyre pressure including spare—see tyre placard on end of driver's door.
2. Brake and clutch master cylinder fluid levels—see "Checking brake and clutch fluid" in part "A" of this Handbook.
3. Windshield washer fluid level/s—see "Adding washer fluid" in part "A" of this Handbook.

Vehicle Appearance
If you park or garage your vehicle where the atmosphere or road surface contains salt, you should wash your vehicle frequently to minimise corrosion. See "Corrosion prevention and appearance care" in part "A" of this Handbook.

Lubricant selection
When your vehicle was being designed, great care was taken when selecting lubricants for the engine and transaxle. These lubricants are given in this Handbook, they have been extensively tested and give the required performance. It is not recommended that their chemical composition be changed by adding proprietary line additives.

COOLING SYSTEM INHIBITOR SELECTION
Your coolant must contain either corrosion inhibitor or ehtylene glycol based anti-freeze containing anti-corrosive.

Corrosion inhibitor

The use of Holden engine cooling system corrosion inhibitor (part number 0881200025-A) is essential when replacing

the coolant in Holden vehicles. The Holden inhibitor's chemical composition is the product of extensive research and development, and has been designed specifically to maximise corrosion prevention of the engine cooling system when replaced in correct proportions in accordance with the vehicle maintenance schedule. When replacing coolant, it is essential that all existing coolant be thoroughly flushed from the system (includes engine, radiator, heater and hoses) and Holden corrosion inhibitor added together with clean demineralised or distilled water (See "Changing the Engine Coolant" in part "A" of this Handbook). Holden coolant corrosion inhibitor must be used to ensure maximum corrosion protection.

Anti-freeze

If anti-freeze type coolant is required, all coolant must be drained, and the system thoroughly flushed to remove all corrosion inhibitor. (See under "Corrosion Inhibitor" this page, "Changing the Engine Coolant" and "Winter Driving Tips", in part "A" of this Handbook). A good quality ethylene-glycol based anti-freeze containing anti-corrosive, compatible with aluminium alloy and other system component materials, should then be added, together with clean de-mineralised or distilled water, in proportions according to the anti-freeze manufacturer's specifications.

The coolant containing anti-freeze can remain in the system until the anti-freeze manufacturer's recommended change interval has been reached. The anti-freeze coolant must then be flushed from the system and Holden corrosion inhibitor added, or, if sub-zero ambient driving temperatures are anticipated, anti-freeze added, together with demineralised or distilled water (refer to previous paragraph).

NOTICE:

Whenever anti-freeze or inhibitor is replaced, the system must be thoroughly flushed as described in "Flushing Procedure", in part "A" of this Handbook.

Inhibitors and/or anti-freeze must never be mixed due to varying chemical properties and reactions in different formulas. Use only demineralised or distilled water to fill the radiator. Do not use alcohol type antifreeze or plain water alone.

Holden's commitment to quality service

Quality is uppermost throughout the design, testing and manufacture of Holden vehicles. Each one is made to exacting specifications for your driving comfort and enjoyment. Modern motor cars are extremely complex, and contain many parts. Occasionally, a failure of one of the parts may occur. Should you experience such a failure, you will find your nearest Holden Dealer well equipped to correct it as each dealership has special service tools and trained technicians.

If you are travelling and require service but you are too far from your servicing Dealer, you will find the name, address and telephone number of the dealer nearest to you, in the Holden Service Directory contained in this booklet.

Vehicle emission control information

Environmental protection and Holden
It is a matter of great importance and also the duty of mankind to protect our atmosphere and environment against pollution and leave it clean and unpolluted to posterity. Holden has long been directing its technical efforts and resources toward fulfilling this important requirement. As a result, Holden has succeeded in developing various emission control systems that will minimize atmospheric pollution without sacrificing the vehicle utility.

The emission control systems installed in your vehicle comply with all the requirements of the relevant Australian Design Rules as well as various other regulations.

Your role in controlling air polution
To keep our air clean, you are responsible for the proper operation, maintenance and care of your vehicle in accordance with the instructions contained in this handbook.

Do not remove or modify the emission control systems in any vehicle operating on public roads after the purchase of the vehicle. Any maintenance work on the emission control systems other than that specified by Holden should be avoided.

You are also responsible for keeping maintenance records as in some instances it may be necessary for you to substantiate that the required maintenance has been performed.

If you have services performed by someone other than an authorised Holden dealer, you should keep a file of the repair orders to show completion and compliance to these services.

Fuel recommendations
Your new vehicle must use only unleaded fuel: Research Octane No. 91 or higher.

Use of leaded petrol will cause the catalytic converter to lose its effectiveness and it will also cause the emission control system to function improperly. Further, this can increase maintenance costs.

To prevent leaded petrol from being poured into the fuel tank, your Apollo has a small fuel tank opening. The nozzle on pumps with unleaded fuel will fit it, but the larger standard nozzle on pumps with leaded petrol will not.

Sources of vehicle emission
There are three kinds of gases emitted by the vehicle that pollute the atmosphere:

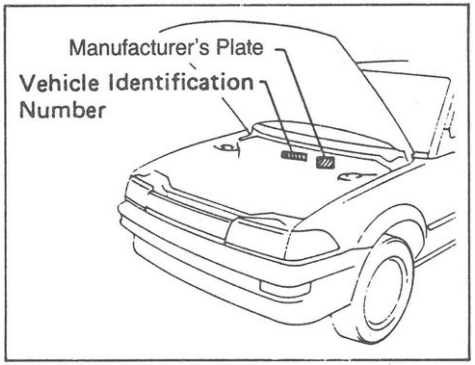
1. Crankcase emission (Blow-by gas)
This is the unburned gas in the cylinder that leaks into the crankcase and is released into the atmosphere, and contains *hydrocarbons (HC).*

2. Exhaust emission
This is the gas formed by the combustion of the fuel inside the cylinder and discharged into the atmosphere through the exhaust pipe. It contains *carbon monoxide (CO), hydrocarbons (HC), and nitrogen oxides (NOx).*

3. Fuel evaporative emission
This is the petrol vapor formed by vaporization in the fuel tank and fuel system. It contains *hydrocarbons (HC).*

Vehicle emission control information label
The vehicle emission control information label is adhered to the underside of your vehicle hood. This label contains the principle engine tune-up specifications relating to the exhaust emissions.

Your Apollo's identification



Vehicle Identification Number (VIN) is stamped on the engine compartment bulkhead.

The manufacturer's plate, mounted on the same bulkhead, contains VIN, Model data and date of manufacture (see below).

Date of manufacture means:
The date of manufacture, hereinafter called the "Built Date", is the calendar month and year in which the body shell and power train sub-assemblies are conjoined and the vehicle is driven or moved from the production line.

1000 km Inspection and Adjustment

Date .....

km .....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

Free 1000 km Service Voucher*

Free Service Voucher

1. Inspect A/C refrigerant level sight glass.
2. Inspect A/C pipes and tubes including alignment.
3. Inspect A/C idle cut-off and/or idle-up.
4. Inspect A/C drain tube.
5. Inspect clutch pedal, release fork, brake pedal and parking brake.
6. Inspect brake and clutch fluid.
7. Inspect brake line pipes and hoses.
8. Tighten chassis and body nuts and bolts.

***Oils and Materials used will be charged to the owner at the normal rate**

Model ..... **V.I.N.** ..... **Engine No.** .....

Owner's Name and Address .....

.....

Name of selling Dealer .....

Name of Servicing Dealer ..... **Service Date** .....

Servicing Dealer's Signature .....

I hereby acknowledge receipt of the 1000 km free service

Owner's Signature .....

10000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 13 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

10000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (all models) 1.0

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

10000 km or 6 Months Service Voucher

ENGINE COMPARTMENT

1. Replace engine oil (grade SF, SG or better).
2. Replace engine oil filter.
3. Inspect battery.
4. Inspect clutch fluid.
5. Inspect brake fluid.

AIR CONDITIONER

6. Inspect refrigerant level sight glass.
7. Inspect pipes and tubes including alignment.
8. Inspect drain tube.
9. Inspect idle cut-off and/or idle-up.
10. Inspect condenser, clean if necessary.

VEHICLE EXTERIOR

11. Inspect all lights, horns, wipers and windshield washers.
12. Inspect tyres and inflation pressures.

ON ROAD

13. Road test.
14. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

ENGINE COMPARTMENT

a.) Inspect air filter.

UNDER VEHICLE

a.) Tighten chassis body bolts and nuts.
b.) Inspect drive shaft boots.
c.) Inspect steering linkage.
d.) Inspect exhaust pipes and mountings.
e.) Inspect brake line pipes and hoses.

VEHICLE EXTERIOR

a.) Inspect ball joints and dust covers.
b.) Inspect brake linings and drums (including parking brake linings and drums).
c.) Inspect brake pads and discs.

VEHICLE INTERIOR

a.) Inspect steering wheel.

Note: Labour, oils and materials required to complete this service are chargeable to the Owner.

Additional services requested .....

.....

Signature of/for Owner .....Date .....

20000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 29 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

ABBREVIATIONS:

A/T	= Automatic Transaxle
M/T	= Manual Transaxle
D/C	= Front Discs and Rear Drum
RR D/C	= Front and Rear Discs

20000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (M/T, D/C)	1.5
Apollo (M/T, RR D/C)	1.6
Apollo (A/T, D/C)	1.5
Apollo (A/T, RR D/C)	1.6

SEE STUB OPPOSITE FOR EXPLANATION OF ABBREVIATIONS

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

20000 km or 12 Months Service Voucher

ENGINE COMPARTMENT

1. Inspect drive belts.
2. Replace engine oil (grade SF, SG or better).
3. Replace engine oil filter.
4. Replace engine/radiator coolant. (See "Cooling system inhibitor selection" Part "B" page 140).
5. Inspect air filter.
6. Inspect battery.
7. Inspect clutch fluid.
8. Inspect power steering fluid.
9. Inspect A/T fluid.
10. Inspect brake fluid.

AIR CONDITIONER

11. Inspect refrigerant level sight glass.
12. Inspect pipes and tubes including alignment.
13. Inspect drain tube.
14. Inspect idle cut-off and/or idle-up.
15. Inspect condenser, clean if necessary.

UNDER VEHICLE

16. Inspect brake line pipes and hoses.
17. Inspect steering linkage.
18. Inspect drive shaft boots.
19. Inspect M/T fluid.
20. Inspect exhaust pipes and mountings.
21. Inspect differential gear oil (A/T only).
22. Tighten chassis body bolts and nuts.

VEHICLE EXTERIOR

23. Inspect brake pads and discs.
24. Inspect ball joints and dust covers.
25. Inspect all lights, horns, wipers and windshield washers.
26. Inspect tyres and inflation pressures.

VEHICLE INTERIOR

27. Inspect brake pedal and parking brake.
28. Inspect steering wheel.

ON ROAD

29. Road test.
30. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service is common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

UNDER VEHICLE

a.) Inspect front and rear suspension.

VEHICLE EXTERIOR

a.) Inspect brake lining and drums (including parking brake linings and drums).

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

.....

Signature of/for Owner .....Date .....

30000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 13 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

30000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (all models)	1.0

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

30000 km or 18 Months Service Voucher

ENGINE COMPARTMENT

1. Replace engine oil (grade SF, SG or better).
2. Replace engine oil filter.
3. Inspect battery.
4. Inspect clutch fluid.
5. Inspect brake fluid.

AIR CONDITIONER

6. Inspect refrigerant level sight glass.
7. Inspect pipes and tubes including alignment.
8. Inspect drain tube.
9. Inspect idle cut-off and/or idle-up.
10. Inspect condenser, clean if necessary.

VEHICLE EXTERIOR

11. Inspect all lights, horns, wipers and windshield washers.
12. Inspect tyres and inflation pressures.

ON ROAD

13. Road test.
14. Inspect front wheel alignment (slide slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

ENGINE COMPARTMENT

a.) Inspect air filter.

UNDER VEHICLE

a.) Tighten chassis body bolts and nuts.
b.) Inspect drive shaft boots.
c.) Inspect steering linkage.
d.) Inspect exhaust pipes and mountings.
e.) Inspect brake line pipes and hoses.

VEHICLE EXTERIOR

a.) Inspect ball joints and dust covers.
b.) Inspect brake linings and drums (including parking brake linings and drums).
c.) Inspect brake pads and discs.

VEHICLE INTERIOR

a.) Inspect steering wheel.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

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Signature of/for Owner .....Date .....

40000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 36 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

ABBREVIATIONS:
A/T = Automatic Transaxle
M/T = Manual Transaxle
D/C = Front Discs and Rear Drum
RR D/C = Front and Rear Discs

40000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (M/T, D/C)	2.6
Apollo (M/T, RR D/C)	2.8
Apollo (A/T, D/C)	2.7
Apollo (A/T, RR D/C)	2.9

SEE STUB OPPOSITE FOR EXPLANATION OF ABBREVIATIONS

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

40000 km or 24 Months Service Voucher

ENGINE COMPARTMENT

1. Inspect drive belts.
2. Replace engine oil (grade SF, SG or better).
3. Replace engine oil filter.
4. Replace cooling/heater system hoses and connections.
5. Replace engine/radiator coolant. (See "Cooling system inhibitor selection" Part "B" page 140).
6. Replace air filter.
7. Inspect battery.
8. Replace spark plugs
9. Inspect fuel lines, connections and fuel vapour control valve.
10. Inspect charcoal canister.
11. Inspect clutch fluid.
12. Inspect power steering fluid.
13. Inspect A/T fluid.

AIR CONDITIONER

14. Inspect refrigerant level sight glass.
15. Inspect pipes and tubes including alignment.
16. Inspect drain tube.
17. Inspect idle cut-off and/or idle-up.
18. Inspect condenser, clean if necessary.

UNDER VEHICLE

19. Replace differential gear oil (A/T only).
20. Inspect exhaust pipes and mountings.
21. Inspect brake line pipes and hoses.
22. Inspect steering linkage.
23. Inspect drive shaft boots.
24. Inspect M/T fluid.
25. Inspect front and rear suspensions.
26. Tighten chassis body bolts and nuts.

VEHICLE EXTERIOR

27. Inspect fuel tank cap.
28. Inspect brake pads and discs.
29. Inspect brake linings and drums (including parking brake linings and drums)
30. Replace brake fluid.
31. Inspect ball joints and dust covers.
32. Inspect all lights, horns, wipers and windshield washers.
33. Inspect tyres and inflation pressures.

VEHICLE INTERIOR

34. Inspect brake pedal and parking brake.
35. Inspect steering wheel.

ON ROAD

36. Road test.
37. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

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Signature of/for Owner .....Date .....

50000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 13 (except items listed uner "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

50000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (all models)	1.0

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

50000 km or 30 Months Service Voucher

ENGINE COMPARTMENT

1. Replace engine oil (grade SF, SG or better).
2. Replace engine oil filter.
3. Inspect battery.
4. Inspect clutch fluid.
5. Inspect brake fluid.

AIR CONDITIONER

6. Inspect refrigerant level sight glass.
7. Inspect pipes and tubes including alignment.
8. Inspect drain tube.
9. Inspect idle cut-off and/or idle-up.
10. Inspect condenser, clean if necessary.

VEHICLE EXTERIOR

11. Inspect all lights, horns, wipers and windshield washers.
12. Inspect tyres and inflation pressures.

ON ROAD

13. Road test.
14. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

ENGINE COMPARTMENT

a.) Inspect air filter.

UNDER VEHICLE

a.) Inspect exhaust pipes and mountings.
b.) Inspect drive shaft boots.
c.) Inspect steering linkage.
d.) Replace M/T fluid.
e.) Tighten chassis and body bolts and nuts.
f.) Inspect brake line pipes and hoses.

VEHICLE EXTERIOR

a.) Inspect brake pads and discs.
b.) Inspect brake linings and drums (including parking brake linings and drums).
c.) Inspect ball joints and dust covers.

VEHICLE INTERIOR

a.) Inspect steering wheel.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

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Signature of/for Owner .....Date .....

60000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 29 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

ABBREVIATIONS:

A/T	= Automatic Transaxle
M/T	= Manual Transaxle
D/C	= Front Discs and Rear Drum
RR D/C	= Front and Rear Discs

60000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (M/T, D/C)	1.5
Apollo (M/T, RR D/C)	1.6
Apollo (A/T, D/C)	1.8
Apollo (A/T, RR D/C)	2.0

SEE STUB OPPOSITE FOR EXPLANATIONS OF ABBREVIATIONS

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

60000 km or 36 Months Service Voucher

ENGINE COMPARTMENT

1. Inspect drive belts.
2. Replace engine oil (grade SF, SG or better).
3. Replace engine oil filter.
4. Replace engine/radiator coolant. (See "Cooling system inhibitor selection" Part "B" page 140).
5. Inspect air filter.
6. Inspect battery.
7. Inspect clutch fluid.
8. Inspect power steering fluid.
9. Inspect brake fluid.

AIR CONDITIONER

10. Inspect refrigerant level sight glass.
11. Inspect pipes and tubes including alignment.
12. Inspect drain tube.
13. Inspect idle cut-off and/or idle-up.
14. Inspect condenser, clean if necessary.

UNDER VEHICLE

15. Inspect brake line pipes and hoses.
16. Inspect steering linkage.
17. Inspect drive shaft boots.
18. Replace A/T fluid.
19. Inspect M/T fluid.
20. Inspect exhaust pipes and mountings.
21. Inspect differential gear oil (A/T only).
22. Tighten chassis body bolts and nuts.

VEHICLE EXTERIOR

23. Inspect brake pads and discs.
24. Inspect ball joints and dust covers.
25. Inspect all lights, horns, wipers and windshield washers.
26. Inspect tyres and inflation pressures.

VEHICLE INTERIOR

27. Inspect brake pedal and parking brake.
28. Inspect steering wheel.

ON ROAD

29. Road test.
30. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

UNDER VEHICLE

a.) Inspect front and rear suspensions.

VEHICLE EXTERIOR

a.) Inspect brake linings and drums (including parking brake linings and drums)

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

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Signature of/for Owner.....Date .....

70000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 13 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

70000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (all models)	1.0

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

70000 km or 42 Months Service Voucher

ENGINE COMPARTMENT

1. Replace engine oil (grade SF, SG or better).
2. Replace engine oil filter.
3. Inspect battery.
4. Inspect clutch fluid.
5. Inspect brake fluid.

AIR CONDITIONER

6. Inspect refrigerant level sight glass.
7. Inspect pipes and tubes including alignment.
8. Inspect drain tube.
9. Inspect idle cut-off and/or idle-up.
10. Inspect condenser, clean if necessary.

VEHICLE EXTERIOR

11. Inspect all lights, horns, wipers and windshield washers.
12. Inspect tyres and inflation pressures.

ON ROAD

13. Road test.
14. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicated service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

ENGINE COMPARTMENT

a.) Inspect air filter.

UNDER VEHICLE

a.) Tighten chassis body bolts and nuts.
b.) Inspect drive shaft boots.
c.) Inspect steering linkage.
d.) Inspect exhaust pipes and mountings.
e.) Inspect brake line pipes and hoses.

VEHICLE EXTERIOR

a.) Inspect ball joints and dust covers.
b.) Inspect brake linings and drums (including parking brake linings and drums).
c.) Inspect brake pads and discs.

VEHICLE INTERIOR

a.) Inspect steering wheel.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

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Signature of/for Owner .....Date .....

80000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 38 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

ABBREVIATIONS:

A/T	= Automatic Transaxle
M/T	= Manual Transaxle
D/C	= Front Discs and Rear Drum
RR D/C	= Front and Rear Discs

80000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (M/T, D/C)	4.1
Apollo (M/T, RR D/C)	4.3
Apollo (A/T, D/C)	4.2
Apollo (A/T, RR D/C)	4.4

SEE STUB OPPOSITE FOR EXPLANATION OF ABBREVIATIONS

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

80000 km or 48 Months Service Voucher

ENGINE COMPARTMENT

1. Adjust valve clearance.
2. Inspect drive belts.
3. Replace engine oil (grade SF, SG or better).
4. Replace engine oil filter.
5. Inspect cooling/heater system hoses and connections.
6. Replace engine/radiator coolant. (See "Cooling system inhibitor selection" Part "B" page 140).
7. Replace air filter.
8. Inspect battery.
9. Replace spark plugs
10. Replace fuel filter.
11. Inspect fuel lines, connections and fuel vapour control valve.
12. Inspect charcoal canister.
13. Inspect clutch fluid.
14. Inspect power steering fluid.
15. Inspect A/T fluid.

AIR CONDITIONER

16. Inspect refrigerant level sight glass.
17. Inspect pipes and tubes including alignment.
18. Inspect drain tube.
19. Inspect idle cut-off and/or idle-up.
20. Inspect condenser, clean if necessary.

UNDER VEHICLE

21. Inspect exhaust pipes and mountings.
22. Inspect brake line pipes and hoses.
23. Inspect steering linkage.
24. Inspect drive shaft boots.
25. Inspect M/T fluid.
26. Replace differential gear oil (A/T only).
27. Inspect front and rear suspensions.
28. Tighten chassis body bolts and nuts.

VEHICLE EXTERIOR

29. Inspect fuel tank cap.
30. Inspect brake pads and discs.
31. Inspect brake linings and drums (including parking brake linings and drums).
32. Replace brake fluid.
33. Inspect ball joints and dust covers.
34. Inspect all lights, horns, wipers and windshield washers.
35. Inspect tyres and inflation pressures.

VEHICLE INTERIOR

36. Inspect brake pedal and parking brake.
37. Inspect steering wheel.

ON ROAD

38. Road test.
39. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

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Signature of/for Owner .....Date .....

90000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 13 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

90000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (all models)	1.0

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

90000 km or 54 Months Service Voucher

ENGINE COMPARTMENT

1. Replace engine oil (grade SF, SG or better).
2. Replace engine oil filter.
3. Inspect battery.
4. Inspect clutch fluid.
5. Inspect brake fluid.

AIR CONDITIONER

6. Inspect refrigerant level sight glass.
7. Inspect pipes and tubes including alignment.
8. Inspect drain tube.
9. Inspect idle cut-off and/or idle-up.
10. Inspect condenser, clean if necessary.

VEHICLE EXTERIOR

11. Inspect all lights, horns, wipers and windshield washers.
12. Inspect tyres and inflation pressures.

ON ROAD

13. Road test.
14. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

ENGINE COMPARTMENT

a.) Inspect air filter.

UNDER VEHICLE

a.) Tighten chassis body bolts and nuts.
b.) Inspect drive shaft boots.
c.) Inspect steering linkage.
d.) Inspect exhaust pipes and mountings.
e.) Inspect brake line pipes and hoses.

VEHICLE EXTERIOR

a.) Inspect ball joints and dust covers.
b.) Inspect brake linings and drums (including parking brake linings and drums).
c.) Inspect brake pads and discs.

VEHICLE INTERIOR

a.) Inspect steering wheel.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

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Signature of/for Owner .....Date .....

100000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 32 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

ABBREVIATIONS:

A/T	= Automatic Transaxle
M/T	= Manual Transaxle
D/C	= Front Discs and Rear Drum
RR D/C	= Front and Rear Discs

100000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (M/T, D/C)	1.9
Apollo (M/T, RR D/C)	2.0
Apollo (A/T, D/C)	1.6
Apollo (A/T, RR D/C)	1.7

SEE STUB OPPOSITE FOR EXPLANATION OF ABBREVIATIONS

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

100000 km or 60 Months Service Voucher

ENGINE COMPARTMENT

1. Inspect drive belts.
2. Replace engine oil (grade SF, SG or better).
3. Replace engine oil filter.
4. Inspect cooling and heater system hoses and connections
5. Replace engine/radiator coolant. (See "Cooling system inhibitor selection" Part "B" page 140).
6. Inspect air filter.
7. Inspect battery.
8. Inspect fuel lines, connections and fuel vapour control valve.
9. Inspect clutch fluid.
10. Inspect power steering fluid.
11. Inspect A/T fluid.
12. Inspect brake fluid.

AIR CONDITIONER

13. Inspect refrigerant level sight glass.
14. Inspect pipes and tubes including alighnment.
15. Inspect drain tube.
16. Inspect idle cut-off and/or idle-up.
17. Inspect condenser, clean if necessary.

UNDER VEHICLE

18. Inspect brake line pipes and hoses.
19. Inspect steering linkage.
20. Inspect drive shaft boots.
21. Replace M/T fluid.
22. Inspect exhaust pipes and mountings.
23. Inspect differential gear oil (A/T only).
24. Tighten chassis body bolts and nuts.

VEHICLE EXTERIOR

25. Inspect fuel tank cap.
26. Inspect brake pads and discs.
27. Inspect ball joints and dust covers.
28. Inspect all lights, horns, wipers and windshield washers.
29. Inspect tyres and inflation pressures.

VEHICLE INTERIOR

30. Inspect brake pedal and parking brake.
31. Inspect steering wheel.

ON ROAD

32. Road test.
33. Inspect front wheel alignment (side slip) when abnormal condition is noted.

ENGINE COMPARTMENT

a.) Replace timing belt.

Item numbers underlined indicate service is common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

UNDER VEHICLE

a.) Inspect front and rear suspension.

VEHICLE EXTERIOR

a.) Inspect brake lining and drums (including parking brake lining and drums).

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

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Signature of/for Owner .....Date 165

110000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 13 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

110000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (all models)	1.0

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

110000 km or 66 Months Service Voucher

ENGINE COMPARTMENT

1. Replace engine oil (grade SF, SG or better).
2. Replace engine oil filter.
3. Inspect battery.
4. Inspect clutch fluid.
5. Inspect brake fluid.

AIR CONDITIONER

6. Inspect refrigerant level sight glass.
7. Inspect pipes and tubes including alignment.
8. Inspect drain tube.
9. Inspect idle cut-off and/or idle-up.
10. Inspect condenser, clean if necessary.

VEHICLE EXTERIOR

11. Inspect all lights, horns, wipers and windshield washers.
12. Inspect tyres and inflation pressures.

ON ROAD

13. Road test.
14. Inspect front wheel alignment (slide slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

ENGINE COMPARTMENT

a.) Inspect air filter.

UNDER VEHICLE

a.) Tighten chassis body bolts and nuts.
b.) Inspect drive shaft boots.
c.) Inspect steering linkage.
d.) Inspect exhaust pipes and mountings.
e.) Inspect brake line pipes and hoses.

VEHICLE EXTERIOR

a.) Inspect ball joints and dust covers.
b.) Inspect brake linings and drums (including parking brake linings and drums).
c.) Inspect brake pads and discs.

VEHICLE INTERIOR

a.) Inspect steering wheel.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

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Signature of/for Owner .....Date .....

120000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 36 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

ABBREVIATIONS:
A/T = Automatic Transaxle
M/T = Manual Transaxle
D/C = Front Discs and Rear Drum
RR D/C = Front and Rear Discs

120000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (M/T, D/C)	2.6
Apollo (M/T, RR D/C)	2.8
Apollo (A/T, D/C)	3.0
Apollo (A/T, RR D/C)	3.2

SEE STUB OPPOSITE FOR EXPLANATION OF ABBREVIATIONS

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

120000 km or 72 Months Service Voucher

ENGINE COMPARTMENT

1. Inspect drive belts.
2. Replace engine oil (grade SF, SG or better).
3. Replace engine oil filter.
4. Inspect cooling/heater system hoses and connections.
5. Replace engine/radiator coolant. (See "Cooling system inhibitor selection" Part "B" page 140).
6. Replace air filter.
7. Inspect battery.
8. Replace spark plugs
9. Inspect fuel lines, connections and fuel vapour control valve.
10. Inspect charcoal canister.
11. Inspect clutch fluid.
12. Inspect power steering fluid.

AIR CONDITIONER

13. Inspect refrigerant level sight glass.
14. Inspect pipes and tubes including alignment.
15. Inspect drain tube.
16. Inspect idle cut-off and/or idle-up.
17. Inspect condenser, clean if necessary.

UNDER VEHICLE

18. Replace A/T fluid.
19. Replace differential gear oil (A/T only).
20. Inspect exhaust pipes and mountings.
21. Inspect brake line pipes and hoses.
22. Inspect steering linkage.
23. Inspect drive shaft boots.
24. Inspect M/T fluid.
25. Inspect front and rear suspensions.
26. Tighten chassis body bolts and nuts.

VEHICLE EXTERIOR

27. Inspect fuel tank cap.
28. Inspect brake pads and discs.
29. Inspect brake linings and drums (including parking brake linings and drums).
30. Replace brake fluid.
31. Inspect ball joints and dust covers.
32. Inspect all lights, horns, wipers and windshield washers.
33. Inspect tyres and inflation pressures.

VEHICLE INTERIOR

34. Inspect brake pedal and parking brake.
35. Inspect steering wheel.

ON ROAD

36. Road test.
37. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

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Signature of/for Owner .....Date .....

130000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 13 (except items listed uner "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

130000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (all models)	1.0

Date .....

km .....

Dealer Stamp

HOLDEN & WISE
QUALITY SERVICE & PARTS

130000 km or 78 Months Service Voucher

ENGINE COMPARTMENT

1. Replace engine oil (grade SF, SG or better).
2. Replace engine oil filter.
3. Inspect battery.
4. Inspect clutch fluid.
5. Inspect brake fluid.

AIR CONDITIONER

6. Inspect refrigerant level sight glass.
7. Inspect pipes and tubes including alignment.
8. Inspect drain tube.
9. Inspect idle cut-off and/or idle-up.
10. Inspect condenser, clean if necessary.

VEHICLE EXTERIOR

11. Inspect all lights, horns, wipers and windshield washers.
12. Inspect tyres and inflation pressures.

ON ROAD

13. Road test.
14. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

ENGINE COMPARTMENT

a.) Inspect air filter.

UNDER VEHICLE

a.) Inspect exhaust pipes and mountings.
b.) Inspect drive shaft boots.
c.) Inspect steering linkage.
d.) Replace MIT fluid.
e.) Tighten chassis and body bolts and nuts.
f.) Inspect brake line pipes and hoses.

VEHICLE EXTERIOR

a.) Inspect brake pads and discs.
b.) Inspect brake linings and drums (including parking brake linings and drums).
c.) Inspect ball joints and dust covers.

VEHICLE INTERIOR

a.) Inspect steering wheel.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

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Signature of/for Owner .....Date .....

140000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 32 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

ABBREVIATIONS:
A/T = Automatic Transaxle
M/T = Manual Transaxle
D/C = Front Discs and Rear Drum
RR D/C = Front and Rear Discs

140000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (M/T, D/C)	1.6
Apollo (M/T, RR D/C)	1.7
Apollo (A/T, D/C)	1.6
Apollo (A/T, RR D/C)	1.7

SEE STUB OPPOSITE FOR EXPLANATIONS OF ABBREVIATIONS

Date .....

km .....

Dealer Stamp

HOLDEN & WISE
QUALITY SERVICE & PARTS

140000 km or 84 Months Service Voucher

ENGINE COMPARTMENT

1. Inspect drive belts.
2. Replace engine oil (grade SF, SG or better).
3. Replace engine oil filter.
4. Inspect cooling and heater system hoses and connections
5. Replace engine/radiator coolant. (See "Cooling system inhibitor selection" Part "B" page 140).
6. Inspect air filter.
7. Inspect battery.
8. Inspect fuel lines, connections and fuel vapour control valve.
9. Inspect clutch fluid.
10. Inspect power steering fluid.
11. Inspect brake fluid.
12. Inspect A/T fluid.

AIR CONDITIONER

13. Inspect refrigerant level sight glass.
14. Inspect pipes and tubes including alignment.
15. Inspect drain tube.
16. Inspect idle cut-off and/or idle-up.
17. Inspect condenser, clean if necessary.

UNDER VEHICLE

18. Inspect brake line pipes and hoses.
19. Inspect steering linkage.
20. Inspect drive shaft boots.
21. Replace M/T fluid.
22. Inspect exhaust pipes and mountings.
23. Inspect differential gear oil (A/T only).
24. Tighten chassis body bolts and nuts.

VEHICLE EXTERIOR

25. Inspect fuel tank cap.
26. Inspect brake pads and discs.
27. Inspect ball joints and dust covers.
28. Inspect all lights, horns, wipers and windshield washers.
29. Inspect tyres and inflation pressures.

VEHICLE INTERIOR

30. Inspect brake pedal and parking brake.
31. Inspect steering wheel.

ON ROAD

32. Road test.
33. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

UNDER VEHICLE

a.) Inspect front and rear suspensions.

VEHICLE EXTERIOR

a.) Inspect brake lining and drums (including parking brake lining and drums).

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

.....

Signature of/for Owner .....Date .....

150000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 13 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

150000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (all models)	1.0

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

150000 km or 90 Months Service Voucher

ENGINE COMPARTMENT

1. Replace engine oil (grade SF, SG or better).
2. Replace engine oil filter.
3. Inspect battery.
4. Inspect clutch fluid.
5. Inspect brake fluid.

AIR CONDITIONER

6. Inspect refrigerant level sight glass.
7. Inspect pipes and tubes including alignment.
8. Inspect drain tube.
9. Inspect idle cut-off and/or idle-up.
10. Inspect condenser, clean if necessary.

VEHICLE EXTERIOR

11. Inspect all lights, horns, wipers and windshield washers.
12. Inspect tyres and inflation pressures.

ON ROAD

13. Road test.
14. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

ENGINE COMPARTMENT

a.) Inspect air filter.

UNDER VEHICLE

a.) Inspect exhaust pipes and mountings.
b.) Inspect drive shaft boots.
c.) Inspect steering linkage.
d.) Replace M/T fluid.
e.) Tighten chassis and body bolts and nuts.
f.) Inspect brake line pipes and hoses.

VEHICLE EXTERIOR

a.) Inspect brake pads and discs.
b.) Inspect brake linings and drums (including parking brake linings and drums).
c.) Inspect ball joints and dust covers.

VEHICLE INTERIOR

a.) Inspect steering wheel.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

.....

Signature of/for Owner .....Date .....

160000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 38 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

ABBREVIATIONS:

A/T	= Automatic Transaxle
M/T	= Manual Transaxle
D/C	= Front Discs and Rear Drum
RR D/C	= Front and Rear Discs

160000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (M/T, D/C)	4.1
Apollo (M/T, RR D/C)	4.3
Apollo (A/T, D/C)	4.2
Apollo (A/T, RR D/C)	4.4

SEE STUB OPPOSITE FOR EXPLANATION OF ABBREVIATIONS

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

160000 km or 96 Months Service Voucher

ENGINE COMPARTMENT

1. Adjust valve clearance.
2. Inspect drive belts.
3. Replace engine oil (grade SF, SG or better).
4. Replace engine oil filter.
5. Inspect cooling/heater system hoses and connections.
6. Replace engine/radiator coolant. (See "Cooling system inhibitor selection" Part "B" page 140).
7. Replace air filter.
8. Inspect battery.
9. Replace spark plugs
10. Replace fuel filter.
11. Inspect fuel lines, connections and fuel vapour control valve.
12. Inspect charcoal canister.
13. Inspect clutch fluid.
14. Inspect power steering fluid.
15. Inspect A/T fluid.

AIR CONDITIONER

16. Inspect refrigerant level sight glass.
17. Inspect pipes and tubes including alignment.
18. Inspect drain tube.
19. Inspect idle cut-off and/or idle-up.
20. Inspect condenser, clean if necessary.

UNDER VEHICLE

21. Inspect exhaust pipes and mountings.
22. Inspect brake line pipes and hoses.
23. Inspect steering linkage.
24. Inspect drive shaft boots.
25. Inspect M/T fluid.
26. Replace differential gear oil (A/T only).
27. Inspect front and rear suspensions.
28. Tighten chassis body bolts and nuts.

VEHICLE EXTERIOR

29. Inspect fuel tank cap.
30. Inspect brake pads and discs.
31. Inspect brake linings and drums (including parking brake linings and drums).
32. Replace brake fluid.
33. Inspect ball joints and dust covers.
34. Inspect all lights, horns, wipers and windshield washers.
35. Inspect tyres and inflation pressures.

VEHICLE INTERIOR

36. Inspect brake pedal and parking brake.
37. Inspect steering wheel.

ON ROAD

38. Road test.
39. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

.....

Signature of/for Owner .....Date .....

170000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 13 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

170000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (all models)	1.0

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

170000 km or 102 Months Service Voucher

ENGINE COMPARTMENT

1. Replace engine oil (grade SF, SG or better).
2. Replace engine oil filter.
3. Inspect battery.
4. Inspect clutch fluid.
5. Inspect brake fluid.

AIR CONDITIONER

6. Inspect refrigerant level sight glass.
7. Inspect pipes and tubes including alignment.
8. Inspect drain tube.
9. Inspect idle cut-off and/or idle-up.
10. Inspect condenser, clean if necessary.

VEHICLE EXTERIOR

11. Inspect all lights, horns, wipers and windshield washers.
12. Inspect tyres and inflation pressures.

ON ROAD

13. Road test.
14. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

ENGINE COMPARTMENT

a.) Inspect air filter.

UNDER VEHICLE

a.) Tighten chassis body bolts and nuts.
b.) Inspect drive shaft boots.
c.) Inspect steering linkage.
d.) Inspect exhaust pipes and mountings.
e.) Inspect brake line pipes and hoses.

VEHICLE EXTERIOR

a.) Inspect ball joints and dust covers.
b.) Inspect brake linings and drums (including parking brake linings and drums).
c.) Inspect brake pads and discs.

VEHICLE INTERIOR

a.) Inspect steering wheel.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

.....

Signature of/for Owner .....Date .....

180000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 32 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

ABBREVIATIONS:
A/T = Automatic Transaxle
M/T = Manual Transaxle
D/C = Front Discs and Rear Drum
RR D/C = Front and Rear Discs

180000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (M/T, D/C)	1.6
Apollo (M/T, RR D/C)	1.7
Apollo (A/T, D/C)	1.9
Apollo (A/T, RR D/C)	2.1

SEE STUB OPPOSITE FOR EXPLANATION OF ABBREVIATIONS

Date .....

km .....

Dealer Stamp

HOLDEN WISE QUALITY SERVICE & PARTS

180000 km or 108 Months Service Voucher

ENGINE COMPARTMENT

1. Inspect drive belts.
2. Replace engine oil (grade SF, SG or better).
3. Replace engine oil filter.
4. Inspect cooling and heater system hoses and connections
5. Replace engine/radiator coolant. (See "Cooling system inhibitor selection" Part "B" page 140).
6. Inspect air filter.
7. Inspect battery.
8. Inspect fuel lines, connections and fuel vapour control valve.
9. Inspect clutch fluid.
10. Inspect power steering fluid.
11. Inspect brake fluid.

AIR CONDITIONER

12. Inspect refrigerant level sight glass.
13. Inspect pipes and tubes including alignment.
14. Inspect drain tube.
15. Inspect idle cut-off and/or idle-up.
16. Inspect condenser, clean if necessary.

UNDER VEHICLE

17. Inspect brake line pipes and hoses.
18. Inspect steering linkage.
19. Inspect drive shaft boots.
20. Inspect M/T fluid.
21. Inspect exhaust pipes and mountings.
22. Replace A/T fluid.
23. Inspect differential gear oil (A/T only).
24. Tighten chassis body bolts and nuts.

VEHICLE EXTERIOR

25. Inspect fuel tank cap.
26. Inspect brake pads and discs.
27. Inspect ball joints and dust covers.
28. Inspect all lights, horns, wipers and windshield washers.
29. Inspect tyres and inflation pressures.

VEHICLE INTERIOR

30. Inspect brake pedal and parking brake.
31. Inspect steering wheel.

ON ROAD

32. Road test.
33. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service is common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

UNDER VEHICLE

a.) Inspect front and rear suspension.

VEHICLE EXTERIOR

a.) Inspect brake lining and drums (including parking brake lining and drums).

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

.....

Signature of/for Owner .....Date .....

190000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 13 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

190000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (all models)	1.0

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

190000 km or 114 Months Service Voucher

ENGINE COMPARTMENT

1. Replace engine oil (grade SF, SG or better).
2. Replace engine oil filter.
3. Inspect battery.
4. Inspect clutch fluid.
5. Inspect brake fluid.

AIR CONDITIONER

6. Inspect refrigerant level sight glass.
7. Inspect pipes and tubes including alignment.
8. Inspect drain tube.
9. Inspect idle cut-off and/or idle-up.
10. Inspect condenser, clean if necessary.

VEHICLE EXTERIOR

11. Inspect all lights, horns, wipers and windshield washers.
12. Inspect tyres and inflation pressures.

ON ROAD

13. Road test.
14. Inspect front wheel alignment (slide slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

ENGINE COMPARTMENT

a.) Inspect air filter.

UNDER VEHICLE

a.) Tighten chassis body bolts and nuts.
b.) Inspect drive shaft boots.
c.) Inspect steering linkage.
d.) Inspect exhaust pipes and mountings.
e.) Inspect brake line pipes and hoses.

VEHICLE EXTERIOR

a.) Inspect ball joints and dust covers.
b.) Inspect brake lining and drums (including parking brake lining and drums).
c.) Inspect brake pads and discs.

VEHICLE INTERIOR

a.) Inspect steering wheel.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

.....

Signature of/for Owner .....Date .....

200000 km

Times quoted are for engine oil and filter change plus inspections and adjustments 1 to 36 (except items listed under "Air conditioner") as required but do not include additional service items for severe or abnormal conditions or as may be recommended by your Dealer.

If vehicle is equipped with an Air Conditioner, add 0.3 of an hour to vehicle service time.

ABBREVIATIONS:

A/T	= Automatic Transaxle
M/T	= Manual Transaxle
D/C	= Front Discs and Rear Drum
RR D/C	= Front and Rear Discs

200000 km

APPROXIMATE SERVICE TIME (HOURS)

Apollo (M/T, D/C)	2.9
Apollo (M/T, RR D/C)	3.1
Apollo (A/T, D/C)	2.7
Apollo (A/T, RR D/C)	2.9

SEE STUB OPPOSITE FOR EXPLANATION OF ABBREVIATIONS

Date.....

km.....

Dealer Stamp

HOLDEN WISE
QUALITY SERVICE & PARTS

200000 km or 120 Months Service Voucher

ENGINE COMPARTMENT

1. Inspect drive belts.
2. Replace engine oil (grade SF, SG or better).
3. Replace engine oil filter.
4. Replace cooling/heater system hoses and connections.
5. Replace engine/radiator coolant. (See "Cooling system inhibitor selection" Part "B" page 140).
6. Replace air filter.
7. Inspect battery.
8. Replace spark plugs
9. Inspect fuel lines, connections and fuel vapour control valve.
10. Inspect charcoal canister.
11. Inspect clutch fluid.
12. Inspect power steering fluid.
13. Inspect A/T fluid.

AIR CONDITIONER

14. Inspect refrigerant level sight glass.
15. Inspect pipes and tubes including alignment.
16. Inspect drain tube.
17. Inspect idle cut-off and/or idle-up.
18. Inspect condenser, clean if necessary.

UNDER VEHICLE

19. Replace differential gear oil (A/T only).
20. Inspect exhaust pipes and mountings.
21. Inspect brake line pipes and hoses.
22. Inspect steering linkage.
23. Inspect drive shaft boots.
24. Replace M/T fluid.
25. Inspect front and rear suspensions.
26. Tighten chassis body bolts and nuts.

VEHICLE EXTERIOR

27. Inspect fuel tank cap.
28. Inspect brake pads and discs.
29. Inspect brake linings and drums (including parking brake linings and drums).
30. Replace brake fluid.
31. Inspect ball joints and dust covers.
32. Inspect all lights, horns, wipers and windshield washers.
33. Inspect tyres and inflation pressures.

VEHICLE INTERIOR

34. Inspect brake pedal and parking brake.
35. Inspect steering wheel.

Item numbers underlined indicate service common to all models.

Note: Labour, oils and materials required to complete this Service are chargeable to the Owner.

Additional services requested .....

.....

Signature of/for Owner .....Date .....

ON ROAD

36. Road test.
37. Inspect front wheel alignment (side slip) when abnormal condition is noted.

Item numbers underlined indicate service common to all models.

If vehicle has been subjected to severe or abnormal driving conditions, the following should also be serviced.

ENGINE COMPARTMENT

a.) Replace timing belt.

Notice of Name/Address Ownership Change

PLEASE TICK APPROPRIATE SQUARE

☐ NAME/ADDRESS CHANGE

☐ SUBSEQUENT OWNER

Owner's Name Mr. Mrs. Miss .....

Address .....

Town .....

State .....

Registration No. .....

Vehicle Identification Number (VIN) .....

To ensure continued interest in your vehicle, Holden's requests that owners who change their name or address (or subsequent owners who purchase the vehicle) fill in and mail one of the attached notices. Please forward to the address shown on the reverse side of the notice.

Notice of Name/Address Ownership Change

PLEASE TICK APPROPRIATE SQUARE

☐ NAME/ADDRESS CHANGE

☐ SUBSEQUENT OWNER

Owner's Name Mr. Mrs. Miss .....

Address .....

Town .....

State .....

Registration No. .....

Vehicle Identification Number (VIN) .....

To ensure continued interest in your vehicle, Holden's requests that owners who change their name or address (or subsequent owners who purchase the vehicle) fill in and mail one of the attached notices. Please forward to the address shown on the reverse side of the notice.

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
General Motors-Holden's Automotive Limited
Box 548D, G.P.O.
Melbourne,
Victoria, 3001.

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
General Motors-Holden's Automotive Limited
Box 548D, G.P.O.
Melbourne,
Victoria, 3001.

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